
CARNEGIE CORPORATION OF NEW YORK

ANNUAL
REPORT
1987

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CARNEGIE
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REPORT OF THE PRESIDENT



FUNDAMENTAL BUILDING BLOCKS OF EARLY LIFE

This is my fifth essay since coming to Carnegie Corporation and a time for perspective. For the most part I have written about children and youth — the most precious and vulnerable asset of humanity. The first essay sketched the context for the then-new Carnegie programs — what problems we would tackle and why more than half our efforts would be devoted to the young of the species. The second essay dealt with prejudice, ethnocentrism, and violence. It touched on the search for ways to reduce the risks of hateful and violent orientations in the course of child development. The next three essays, including the current one, deal with other ways in which young life is lost, jeopardized, or eroded and the paths toward diminishing these casualties in the future. The essays view early life as the foundation for all the rest, and the basis for the kind of people we can become. Of the three, the first was an overview of childhood and adolescence; the second focused on the crucial phase of early adolescence; this one centers on another crucial phase, the first few years of life. The common feature of all these essays is a quest for an understanding of great leverage points for the human future. It is a privilege to be able to reach so many thoughtful and constructive readers through the medium of the annual report essay. My fervent hope is that they will be stimulated to pursue these challenges in their own diverse ways, and to go far beyond the information and ideas sketched here.

The rediscovery of early childhood

In 1987 several remarkable events converged in a way that bodes well for young children in the remainder of this century and so for the entire nation in the next century. In essence, state governors, members of the business community, and leaders in the media rediscovered young children in 1987. Various reports of these groups addressed the serious casualties occurring among many children in the first few years of life and reviewed the evidence of useful interventions to offset and even prevent such casualties. A few examples convey this sense of awakening of national concern.

Note: The president's annual essay is a personal statement representing his own views. It does not necessarily reflect the foundation's policies.

In September an in-depth report was published by a group of eminent business leaders under the auspices of the Committee for Economic Development (CED). Called *Children in Need: Investment Strategies for the Educationally Disadvantaged*, it set forth a well-documented rationale and agenda for tackling the problems of early child development and effective education for all. "Quality education for all children is not an expense," said the report, "it is an investment. Failure to educate is the true expense. In addition to improving our schools, investing in the careful nurturing of children from before birth through age five will deliver handsome profit to society and to the individuals and families who have so much to gain Every \$1 spent on early prevention and intervention can save \$4.75 in the costs of remedial education, welfare, and crime further down the road."

The CED noted that the educational problems of disadvantaged children are often evident long before these children begin formal schooling. Yet, in 1986, the nation spent \$264 billion on education for children age six and older, while it spent only about \$1 billion for educating children five years old and younger. The report concluded that most of the children at risk of educational failure can be rescued if their schooling is improved and society reaches out to these children and their families in their earliest years: "It is clearly a superior investment for both society and individuals to prevent later failure by working with at-risk parents and their children from prenatal care through age five. We call for early and sustained intervention into the lives of at-risk children as the only way to ensure that they embark and stay on the road to successful learning. We also urge that community support systems be mobilized on behalf of disadvantaged families and children." Efforts, the report said, should include

- 1) programs to encourage pregnant teenagers and those with babies to stay in school: Developing the skills that will help them get and keep decently paid jobs can deter repeat pregnancies and avoid a lifetime of dependency. Pregnancy prevention programs should start in the middle grades to educate youngsters to the life options available to them other than early parenting;
- 2) prenatal and postnatal care for pregnant teens and other high-risk mothers and family health care and developmental screening for children: Children need to be born healthy and to stay healthy so that they can grow and develop normally. Many avoidable learning deficiencies are the result of poor health care during pregnancy and early childhood;
- 3) quality child-care arrangements for teenagers in school and poor working parents: Child care should stress social skills, language development, and school readiness; programs for teen parents that provide on-site day care offer an excellent opportunity to teach good parenting skills;
- 4) quality preschool programs for all disadvantaged three- and four-year-olds: Quality preschool programs have been shown to improve school readiness, enhance later academic and social performance, and reduce the need for remedial education during the school years.

The CED report urged the business community to become "a driving force" on

behalf of public education and a prime advocate of educational initiatives for disadvantaged youngsters, emphasizing that business "should also take the lead in encouraging and supporting higher funding levels where they are needed both for early prevention programs and for the public education system."

During the summer of 1987, a group of the nation's governors, acting under the auspices of the National Governors' Association, concluded a year-long effort to develop comprehensive state action plans to bring down the barriers to family and individual self-sufficiency. The task force considered the best methods for preventing school dropout, teenage pregnancy, drug and alcohol abuse, and welfare dependency.

Two fundamental conclusions reached by the governors bear directly on prevention. First, barriers to the full realization of human potential often have common root causes, including unmet needs for food, clothing, shelter, medical care, and basic academic skills, leading to diminished self-esteem and life options. Second, the earlier a preventive or ameliorative intervention begins, the more likely it is to meet with success.

The governors' illuminating report, *The First Sixty Months*, surveyed a great variety of early intervention programs and their impact. Those that were most effective in achieving intended results, the report generally noted,

- focus on the lowest two rungs of the prevention triangle—the general and at-risk populations—where the greatest benefit is likely to be achieved for the least cost and with the least intrusion;
- reach out to multiple agencies, whether public or private, in order to deliver an array of needed services;
- target multiple problems, even if a single problem is the initial focus;
- often go into families' homes, rather than expecting participants to report to agency offices;
- maximize parent involvement so parents can ultimately be the service providers and advocates for their children;
- include some evaluation efforts, to measure the extent of the program's impact and learn whether or not the delivery model needs refinement; and
- mix funds from public, private, state, and local sources.

American media organizations also took unprecedented interest in the problems of early childhood during the past year, much of it well-informed and constructive. For example, *Time* magazine ran a substantial cover story in June entitled "The Child-Care Dilemma." Two editorials of nationwide significance appeared in August: *USA Today* strongly recommended preschool education after publishing different views on the subject. The comprehensive *New York Times* editorial entitled "For Children: A Fair Chance" succinctly identified the fundamentals of healthy child development. In a highly informative book, *A Better Start: New Choices for Early Learning*, Fred M. Hechinger, education columnist for the *Times*, called for new arrangements to care for children in their early years, including "simple child

care and what has come to be known as early childhood education.” The *Chicago Tribune*, *Washington Post*, and *Los Angeles Times*, among others, pursued these and other issues concerning child development in depth.

Substantial new research, analytical reviews of research results, and evaluations of innovative interventions also made their appearance during the year. One longitudinal study in Syracuse, New York, on the impact of an early intervention during the first five years of life found an impressive lowering of adolescent delinquency.* Children of low-income families who participated in the Syracuse University Family Development Research Program had a 6 percent rate of juvenile delinquency, compared to a 22 percent rate for children in a control group. Not only was the control-group delinquency rate almost four times greater, but the offenses were considerably more severe. Thus, another piece of evidence was added to the growing account of long-term benefits from carefully crafted early interventions in circumstances of formidable disadvantage.

Additionally, in 1987 William Julius Wilson published a well-documented account of high poverty concentration areas in the inner city.** His study clarifies factors that influence the development of children growing up in such areas and illuminates ways in which economic conditions have a powerful impact on psychological development — on the perception of opportunity, for example. It shows how the problem of the “underclass” in America has been exacerbated by the exodus of working-class blacks and the emerging black middle class from the inner city, thereby weakening social support networks and depriving those left behind of constructive role models. Above all, the study focuses attention on the profound impact of severe poverty and community disruption on child development.

With so much new information, so many new ideas, and such intense concern, there has been a noticeable upsurge of interest in their policy implications among members of Congress in both parties and both houses. There is now considerable political ferment for promoting healthy child development and especially for putting in place the solid building blocks of healthy development during the earliest years of life. On the opening day of the fall session of Congress, an unusual joint hearing was held by the Senate Committee on Labor and Human Resources and the House Committee on Education and Labor. This hearing undertook a comprehensive assessment of the problems and opportunities of the early years — from the laboratory to the clinic to business to the schools and to innovations on the street — and urged a search for ways to prevent the destruction of so many young lives.

Early childhood is clearly one of the most crucial periods of development in the entire life span. It is characterized by rapid development, major shaping influences, and vulnerability, with long-term consequences. All of us concerned with the early

* J. R. Lally, P. L. Mangione, and A. S. Honig, “The Syracuse University Family Development Research Program: Long-Range Impact of an Early Intervention with Low-Income Children and their Families,” in *Parent Education in Early Childhood Intervention: Emerging Directions in Their Research and Practice*, edited by D. R. Powell (Ablex Publishers, 1988).

** W. J. Wilson, *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy* (University of Chicago Press, 1987).

years are searching for ways to prevent the heavy casualties that are taking place and to minimize the grave disparities that still persist in this country in opportunities for development, education, and health. These issues, indeed, go to the very heart of our future as a people. They have consequences not only for the individual but for the fabric of the entire society.

Understanding the problem

During the past two decades, much thoughtful effort has gone into research on the first few years of life, primarily with respect to children raised in poverty. Observations of many teachers, school administrators, and physicians as well as behavioral and social scientists have documented the extent to which children growing up in extremely impoverished circumstances enter school already impaired in their biological, psychological, and social development. The families of such children, especially their mothers, have formidable vulnerabilities that increase the risk that these children will have health problems from the very beginning of their lives. They are more likely than middle-income children to suffer from low birthweight, neonatal damage, malnutrition, untreated childhood illness, and uncorrected early problems of hearing and vision.

Moreover, such children typically are exposed to an unusually high degree of stress in the social environment on a continuing, long-term basis. They often grow up in disorganized, impoverished neighborhoods and circumstances, with socially isolated, very young mothers, without fathers, and with minimal support from other family members or friends. From the time they enter school, they are frequently observed to be emotionally troubled, underdeveloped in their social skills, and linguistically and cognitively well behind their more fortunate peers. By the third grade, many of them are unable to take advantage of the math and science education that could equip them for even moderately technical occupations later in life.

There is clear reason to be concerned about the adverse effects of extreme poverty on child development, community disintegration, and other severe problems in the social environment. But there is also reason to worry about the conditions under which young children from more affluent sections of the society are raised, particularly with respect to the exceedingly rapid social changes of the past two decades. The divorce rate has more than doubled since 1966, and more and more children are living with only one parent, usually the mother. The proportion of families in which both husband and wife are working has gone up sharply. About half of all married and unmarried mothers with small children are in the work force, and the numbers will probably continue to grow. In these circumstances, television often becomes the babysitter, leaving youngsters inactive and exposed to the unmonitored impact of this powerful medium on impressionable minds.

These changes, amply documented in census and other statistics, have had a direct bearing on the experiences of all young children growing up. Inevitably, they challenge long-established modes of attachment between parent and child and point to the need for new arrangements for the care of children in their early years.

Attachment, social support networks, and human development

A child's distress and attempts to reestablish contact with the mother upon separation are as natural and functional for survival as crying when hungry or shivering and crawling toward heat when cold. Over the course of human evolution, infants who formed close attachments to their mothers (and whose mothers reciprocated) were more likely to pass on their genes to future generations than were infants who did not. Attached infants were less likely to be caught by predators and less likely to get lost, suffer from severe exposure, and be injured by other members of their own species.

Once established, such secure attachment provides a base from which the child can increasingly explore its physical and social environment. In the context of secure attachment and valued adult models—provided by either a cohesive family or a more extended social support network—a child can learn certain prosocial behaviors, such as taking turns; sharing with others; cooperating, especially in learning and problem solving; and helping others, especially in times of stress. These norms, established on a simple basis in the first few years of life, prepare the way to more complex and beneficial human relationships that have significance throughout the life span. They tend to earn respect, provide gratification, and amplify the effectiveness of the individual. As a practical matter, early intervention programs need to take account of the factors that influence the development of attachment and prosocial behavior in young children.

The research literature indicates that, in the first few years of life, family climate has a strong influence on emotional, social, and cognitive development and can counteract the disadvantages of poverty. The commitment, support, encouragement, and practical help of a cohesive, resourceful family are indeed of fundamental importance to healthy child development. During the second year of life, when the child's language begins to develop, lively verbal interactions between the child and its mother or other caregivers help lay the foundation for much accomplishment in subsequent development. Adults who talk with the child, read to the child, play games, and interact around varied and interesting toys, as well as encourage ever-widening explorations that are consistent with safety, make a crucial contribution to the development of cognitive and also social skills.

In very poor, disorganized, and socially disadvantaged settings, there tend to be certain patterns of parent-child interaction that are associated with impaired intellectual development, social responsibility, and motivation for later education. Children raised in such circumstances are likely to miss some of the vital interactions in the first and second years of life that lay the foundation for much accomplishment in subsequent development. Studies of preschool children show that those with secure attachments are better at carrying out cognitive tasks than those with insecure attachments. Research has found that family discord and disturbance adversely affect learning. (There is abundant evidence, however, that many children with poor early relationships can recover later if the environment improves.)

Another significant cluster of variables concerns the organization of the physical environment. It is clear from human studies and animal experimentation that an

environment of severe restriction either of sensory input or of active exploration is detrimental to cognitive development. At the other extreme, excessive stimulation, such as very noisy, crowded living conditions, may increase distractibility and even induce biological stress. The way the environment is structured by caretakers with respect to appropriate stimulation thus makes a difference in development during the early years.

In many cases it is the parent, not the child, who lacks the essential skill to form a secure attachment. One contributing factor is the absence of a secure attachment in the parent's own early development. Another is sheer lack of experience, as in the case of very young adolescent mothers outside the extended family. Another is the circumstance of chronic stress with recurrent anxiety coupled with low self-esteem on the mother's part. Unfortunately, these several conditions tend to occur jointly in high poverty concentration areas. In such circumstances, there is a crying need for parent education and social support in conveniently available forms.

The essential *desiderata* for parental behavior during the first five years of life seem relatively simple in concept, but they are difficult to carry out day to day. There are perhaps five basic orientations toward the child that are needed: 1) being a *nurturing* parent — providing adequate food, shelter and protection; 2) being a *loving* parent — cherishing the life of the child and making a patient investment in the child's future; 3) being an *enjoying* parent — finding focal points for interaction with the child that provide mutual satisfaction; 4) being a *teaching* parent, who understands enough about child development to interact constructively with the child, to become skillful as a mentor, and to sharpen the child's skills gradually as its capacity evolves; 5) being a *coping* parent, who knows how to seek help for developing skills that deal effectively with the inevitable vicissitudes of life.

While scientific and scholarly work has something useful to say about all of these orientations, the successful daily application of such principles calls in very practical ways upon individual strength and, not least, upon the availability of social support networks.

Throughout the very long history of the human species, social support networks have played a key role in the formation of basic attachments. In such networks, people discover shared aspirations, provide mutual aid, pool information and coping strategies, rally around each other in time of stress, and learn ways of using community resources. The past few centuries, however, have seen massive disruption of the small and relatively stable communities that provided social support. Disruptive factors have included rapid and vast growth in the scale of human societies, massive migrations, crowding of strangers in very heterogeneous cities, and profound sociotechnical changes at great speed. Such factors tend to break long-term bonds between individuals and to confront people with a perplexing array of unfamiliar, conflicting values and behaviors.

While the family as an institution is still alive, and its functions are still of great significance, it has been pulled out of shape throughout the world, in some places to such an extent that it has been seriously damaged. It is necessary, therefore, to think about ways in which other institutions such as churches, schools, and community organizations might strengthen vulnerable families. The effectiveness of these institutions needs to be enhanced through cooperative programs—especially

in the formation of constructive social support networks that foster health and education. Ways must be found, moreover, to connect the knowledge generated by the scientific and scholarly community with the social support networks of particular parent groups. The following sections describe some of the lessons of research and practice to date.

Strengthening parent-child relationships

In the past several decades, many young adults have begun to feel the need for education to develop competence in being a parent. Presumably the demand for parent education has been influenced by the erosion of the extended family and the lack of associated guidance from experienced elders. In addition, the growing respect for expert professionals along with a widespread acceptance of the contributions of modern science has added to the belief that young parents can draw upon a body of knowledge for guidance in becoming adequate parents.

Many early childhood interventions have become connected with parent education activities. Such combined efforts take many forms and occur in a variety of settings—schools, day care centers, hospitals, health centers, and churches. They are conducted by people with a variety of professional and paraprofessional backgrounds and cover a considerable range of target populations.

Where parent education historically has focused on the child, the family support proponents view the entire family as the unit of intervention. They emphasize the normal stresses of life, seek to prevent damaging outcomes, and legitimize the seeking of help by all families, not just those in a state of crisis or disturbance. They rely on peer-group interaction and trained volunteers as well as professional leadership. Although there is much overlap in practice between family support and parent education, they are conceptually distinct: one can occur without the other. An interesting development in recent years has been the conjunction of the two in community-based programs.

Most community-based early intervention programs throughout the nation have tried innovative ways of responding to urgently felt needs. They are usually straightforward service programs, attempting little or no evaluative research. The goals of community-based early intervention are to augment knowledge and skill in childrearing, enhance the skill of parents in coping with the child and other family matters, help families gain access to services and community resources, facilitate the development of informal support networks among parents, and organize to counteract dangerous trends in the community such as the spread of drugs. Such interventions entail lay home-visiting arrangements or a parent-child center. The centers typically have both parent support and education activities and tend to have other forms of child care and community access as well.

A prominent effort in this regard was the nationwide set of Parent-Child Development Centers (PCDC), stimulated in part by Project Head Start in the 1960s. They provided an extensive curriculum for mothers of low-income families, involving information on childrearing and home management as well as family support. Preschool education for the children from infancy to three years was also included. For study purposes, families in similar circumstances were randomly

assigned to intervention and control groups, and the outcomes assessed according to multiple methods of measurement.

Evidence of benefits from PCDC for families who were in the intervention as compared with the control groups is strong. Mothers in the intervention groups were able to communicate better with their children, showed more sensitivity and emotional responsiveness, used more encouragement with their children, and provided more information when talking with their children. The intervention children scored higher on intelligence tests and showed more adequate social behavior and more positive interactions with their mothers. Unfortunately, a shortage of federal funding consigned the centers to oblivion prematurely, but their influence continues to be felt throughout the country in the developments that have occurred since then.

The successor to PCDC was the Child and Family Resource Program (CFRP). It was the last of the prominent early childhood demonstrations supported by the federal government as an outgrowth of the innovations of the 1960s. Idealistic in conception, CFRP was intended to be a multi-site demonstration of a comprehensive family support model. At its core was a home-visiting program conducted by lay visitors for families with infants from birth to age three years. The program enabled participating children to be linked to a preschool education experience, who in turn were linked through a transition program to elementary school. The aim was to achieve continuity of intervention and to build strengths cumulatively. Beneficial effects occurred in both programs with respect to parenting skill and child development, especially in the more intensive interventions that included both professional and paraprofessional involvement.

Although many innovative programs might be discussed here, one of the most interesting modes of intervention is reflected in Avance-San Antonio. It shows the kind of ingenuity and dedication that can be mobilized in poor communities. Avance is a center-based parent support and education program serving low-income Mexican American families. Operating since 1973, Avance now has two centers, one in a federal housing project and another in a low-income residential neighborhood. Children are enrolled when they are born and continue in the program until they are three years of age. All families in the community are welcome.

A core component of Avance is a nine-month parent education activity consisting each week of two-and-one-half-hour sessions — one hour devoted to toy making, one hour to child development instruction, and one-half hour listening to a community resource speaker. The parents are taught that they themselves can be educators, and they are shown concretely how to facilitate the development of their own children. Emphasis is on building the parents' own self-esteem and perception of opportunity as well as on improving their decision-making skills and specific knowledge of child development. Adult-child interactions that are encouraged through direct demonstration and modeling include play, seeking points of mutual pleasure between mother and child, and giving feedback in constructive ways.

While the classes are going on, the young children of the participants get good care in the same building. Participating mothers have direct responsibility for child

care at the center once a month. In this setting, they observe a child-care specialist at work with the children. They also have monthly home visits during which time the home visitor videotapes mother-infant interaction. These tapes are used in subsequent classes.

The Avance experience points to the importance of ancillary services: transportation to the center, home visits for the new parents as a transition to participation in the activities of the center, day care, pleasurable outings, graduation ceremonies as a focus for solidarity and reward for accomplishment, employment training, family planning, driver education, and learning how to use community resources. The approach has grown increasingly comprehensive over the years. Staff training and supervision is an ongoing part of the activity.

Avance already has some evidence that the program fosters knowledge of child development, increases hopefulness about the future, enhances employment prospects in this poor community, decreases punitive approaches to child discipline, and generally improves the climate of mother-child interaction. The results of a more systematic, differentiated assessment, including random assignment to intervention and control groups, now under way, can help to focus on the crucial lessons to be learned and make them readily available for many other communities.

Fostering health from the start

Education begins with prenatal care. This is true in two senses: 1) education of the mother to avoid harmful substances and promote her own health during pregnancy can protect the growing fetus, especially the vulnerable brain, and 2) parent education can utilize the distinctive motivation of the pregnant woman as well as the expectant father to help them take care of themselves and the baby to come.

The health status of American children has improved significantly over the past 20 years. However, children from low-income families and families where there is only one parent with minimal income are more likely to be in poor health than are other children. Infant mortality is a crude but useful indicator of the general health status of children. One of the major causes of infant mortality in the United States is low birthweight. Not surprisingly, some of the main demographic and other risk factors for low birthweight are similar to those that impede child development generally. The absence or lack of adequate prenatal care early in pregnancy is primary. Other risk factors include the mother's age (younger than age 17 and older than age 34), her low socioeconomic status, her low educational attainment, and her unmarried state.

Future mothers are in particular need of health care from the moment of conception (and sometimes before) to the time of delivery. They and their newborns also need care following birth. In many states, the problem of inadequate prenatal care has grown worse since 1980. About one-fourth of mothers do not begin care in the first trimester of pregnancy; black and Hispanic mothers are twice as likely as white mothers to receive no care in the first trimester. Each year more than a million mothers receive what is generally considered insufficient prenatal care.

The Institute of Medicine (IOM) of the National Academy of Sciences is conducting a study called "Increasing the Early Use of Prenatal Care: The Role of

Outreach," which is surveying programs that serve hard-to-reach pregnant women and keep them in care. Programs are being assessed that strive to remove financial barriers, that bring caregivers to under-served communities, that improve access to services, that keep women in care by providing intensive social supports, that offer counseling and linkages to other needed services, and that use case-finding methods and the public media.

The IOM study is reviewing a variety of surveys of what women themselves see as barriers to obtaining prenatal care. Many mothers, for example, view childbirth as a normal biological event that does not require medical attention. A 1974 study of poor mothers in San Antonio, Texas,* revealed that 62 percent received inadequate prenatal care. Seventy percent of the women interviewed did not value prenatal care, not understanding its significance for their own health and that of their babies. Moreover, poor and near poor families often do not have the money to pay for prenatal care, and many are not eligible for care under certain publicly financed programs.

Lack of child-care support, the remoteness of services from home, the paucity of transportation, and job demands also interfere with regularly scheduled visits. Many women are afraid of doctors, and there are cultural barriers, including a reluctance to be examined or have laboratory work done. The degree of disorganization and dehumanization of many prenatal clinics also contributes to the problem.

A variety of innovative models across the country show that it is feasible to reduce the barriers to prenatal care, opening up opportunities to reduce the incidence of low birthweight and other undesired pregnancy outcomes.** Relevant interventions include pre-pregnancy risk identification, counseling, and risk reduction; health education related to pregnancy outcome generally and to low birthweight in particular; full availability of family planning services, especially for low-income women and adolescents; and, facilitating all the others, heightened awareness in poor communities of the practical significance of prenatal care.

After the first few months of life, injuries (including those from child abuse) constitute the single largest cause of disability and death in young children, accounting for half of all deaths in preschoolers. Although injuries afflict children in all socioeconomic strata, the children at highest risk are the disadvantaged. Progress in preventing serious injuries has been painfully slow, though prevention should be possible through community-based approaches. A necessary first step is to bring together information on injuries in a way that is meaningful for those who shape policy at the community and state levels. Without community leadership, health care providers can make only limited contributions to the prevention of injuries. Several states have recently instituted thoughtful programs of injury prevention. They will bear careful scrutiny by the nation.

* C. E. Gibbs, M. Gutierrez and H. W. Martin, "Patterns of Reproductive Health Care Among the Poor of San Antonio, Texas," *American Journal of Public Health*, Vol. 64, pp. 37-40, 1974.

** Committee to Study the Prevention of Low Birthweight, Institute of Medicine, *Preventing Low Birthweight* (National Academy Press, 1985).

Preschool education

Physicians, behavioral scientists, and educators have conducted studies of children in kindergarten to fourth grade and identified several major indicators of serious difficulty at this early stage of the school career. These indicators include low achievement in reading and mathematics, poor attendance in school, and severe behavior problems. Children with these kinds of problems are in a very weak position to cope with school as it is constituted at present.

Observations of this kind in the 1960s and the 1970s, which built upon studies in the previous two decades, stimulated Head Start and similar efforts to prevent serious damage to children in the early years of their lives and give them a decent chance to do well in school. The cumulative findings from long-term follow-up studies of these interventions indicate that quality programs offered to four- and five-year-olds have strong potential for mitigating a variety of later academic, health, and social problems. Students who have been in early education programs have higher achievement scores in elementary school, are less likely to be classified as needing special education, have higher rates of high school completion and college attendance, and have lower pregnancy and crime rates than otherwise would be predicted for them. Moreover, some programs offer developmental screening and immunizations against infectious diseases. The benefits of linking preventive programs in health and education are clear. The main problem now is how to make such interventions more widely available. Head Start, for example, still only reaches about 20 percent of eligible children.

Summary of basic concepts

The most successful interventions in the zero-to-five-year age period have certain basic characteristics. They start early. They involve the parents substantially in the effort for the long pull. They strengthen natural social support networks. They provide educational activities for young children that have a moderately stimulating quality. They sustain contact with mothers and children over relatively long periods.

The research literature points to several specific features of early interventions that foster health and education for parents and their very young children:

- 1) *Education for pregnant women, mothers, and other caregivers — certainly including fathers:* focuses on self-care during pregnancy, use of prenatal health care, essential features of child development taught in a practical and meaningful way, childrearing principles, points of crucial responsiveness for the caregiver.
- 2) *Fostering of early attachment,* to the mother and other regular caregivers: solid attachment provides a secure base for exploration which in turn sustains curiosity and leads over time to problem-solving capacity.
- 3) *Facilitation of parent-child interactions:* Practical experience in sensitivity to the baby's cues as well as practical matters of support, encouragement, and reward; how to find shared pleasure in this most fundamental of human relationships.
- 4) *Cognitive stimulation* similar to that offered in Head Start: beginning at about

age four and going on for some years. Research shows that well-designed early intervention can have considerable utility, not only in cognition but also in human relationships.

Overall, there are potentially strong positive effects of intervention when parent education, quality child care and/or early childhood education, and social support networks are combined. Such effects have been observed in poor children and in their mothers and younger siblings; they appear to be significant for middle-class families as well. For the former, the interventions occur against a background of deprivation and tend to meet vital needs that are less likely to be met otherwise.

Toward implementation of effective early interventions

It should be possible in the foreseeable future to design interventions that go beyond what has been tried up to now, by using relevant knowledge from child development and child health research to develop informed strategies for intervention and by extending the experience of interventions thus far undertaken.

The potential value of strengthening the capability of young parents to deal with their own children seems evident. It would seem impractical, however, for each parent to make individual decisions about what information and models the scientific and scholarly community has to offer. Helpful would be a standard of reference for prospective and actual parents. Some elements of this effort can be suggested. First, there needs to be a continuing, reliable process for making careful, systematic assessments of up-to-date knowledge regarding the first five years of life. Second, there should be a series of credible syntheses of such knowledge conducted over the years in a kind of rolling reassessment. These would have to be connected with organizational processes that assure the intelligibility and widespread utility of these facts. Third, there needs to be systematic consideration of the ways in which existing institutions could be strengthened to build their capacity for contributing to healthy child development in the early years of life. In principle, it is attractive to conceive of a young children's institution in every community. Such an institution would be accessible, and it would be visible, well known, and respected. It would have clout in the community and yet not be intimidating to parents.

The most fundamental point of entry for interventions is early prenatal care for both parents and child-to-be. Ideally, this would involve not only obstetrical measures designed to protect mother and infant throughout pregnancy, labor, and delivery, but also some basic preparation for both parents regarding their parental tasks and their own life course. In the case of poor parents at least, it would mean connection with opportunities to develop occupational skills.

It seems plausible that health institutions have an important role to play, not only in direct care but also in the organization of broader activities to foster public health—or at least as an organized gatekeeper providing access to other opportunities in parent-child development. It is unlikely, however, that health institutions alone can evolve in such ways as to meet fully the needs that must be addressed.

Edward F. Zigler has recently proposed a bold and comprehensive approach to solving the nation's child-care problem. He formulates several principles and cri-

teria that must be met for a satisfactory child-care system to emerge*:

- 1) The child-care system must be reliable and stable. It must be tied to a major institution that is well known throughout American society.
- 2) Every child should have equal access to child care, and all ethnic and socio-economic groups should be integrated as fully as possible.
- 3) The primary goal of the system is the optimal development of the children using the system. The quality of care is essential.
- 4) Child care of high quality should be readily accessible from early in pregnancy through the first 12 years of life.
- 5) Such programs should address the entire range of human development—not only cognitive development but also personality development and physical and mental health.
- 6) The child-care system should involve true partnership between parents and the children’s caretakers.
- 7) We should do everything we can to train, upgrade the pay, and increase the status of those individuals who care for the nation’s children.

Zigler argues for a school-based approach to the implementation of these principles: “We can solve the child-care crisis by implementing a second system within already existing elementary school buildings, where formal education takes place, and create the school of the 21st century. This second system, he said, would operate on-site child care for children ages three to twelve and would have three outreach programs:

- a family support system for first-time parents;
- support for family day-care homes within the neighborhood;
- information and referral services.

This kind of bold challenge and systemwide thinking is badly needed. Predictably, Zigler’s proposal is controversial. But it brings into focus the critical issue of an institutional basis for early interventions to foster child health and development.

As a practical matter, it will probably be necessary to achieve cooperation among several institutions in a particular community—and the mix might well differ from one to another. Schools, universities, media, churches, business, community organizations, health institutions, government at various levels, and organizations of the scientific and scholarly community—all of these could play a highly constructive role in addressing the problems of concern here. To do so, they will need sustained attention, stimulation, resources and incentives beyond those presently in view in most communities.

* E. F. Zigler, “A Solution to the Nation’s Child Care Crisis: The School of the Twenty-First Century,” talk delivered at The Bush Center in Child Development and Social Policy, September 18, 1987.

Concluding comment

Our ancestors evolved patterns of behavior that worked over exceedingly long periods of time in environments that changed only very slowly by today's standards. Then, rapid change occurred with the Industrial Revolution and became much more rapid and far-reaching in the 20th century. Our present circumstances are very different in most respects from those in which we evolved over many millennia. So our ancient heritage—reflected in our genes, brains, and deep-seated orientations—must now be related to the new world we have so rapidly made. It is a world transformed, and we must learn to live in it without destroying ourselves. In this complicated quest for decent adaptation in modern circumstances, we cannot afford to waste the first few years or use them destructively. Those years have always been crucial in human adaptation. They provide the fundamental opportunity for learning the basic elements of what we need to know—about ourselves, about each other, about our surroundings, about ways to cope and to solve problems.

What happens to a child in the first several years lays the foundation for a long, healthy life span. Early preventive intervention can be exceptionally valuable. Health and education are closely linked in the development of vigorous, skillful, adaptable young people. Investments in health and education can be guided by research in biomedical and behavioral sciences in ways likely to prevent much of the damage now being done to children. The great challenge now is to be sufficiently resourceful and persistent to find ways of putting that knowledge to use for healthy child development. If there is a more fundamental task for human beings, I wonder what it could be.



President

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REPORT ON PROGRAM



LIST OF GRANTS AND APPROPRIATIONS

During the year ended September 30, 1987, the trustees approved 224 grants and appropriations, amounting to a total of \$39,516,588. There were 220 grants, including 68 to schools, colleges, and universities and 152 to other organizations. Appropriations were also made for projects administered by the officers.

The charter of the Corporation provides that all funds are to be used to promote "the advancement and diffusion of knowledge and understanding." Grants must be broadly educational in nature, but they need not be limited to the formal educational system or to educational institutions. The foundation makes it a policy to select a few areas in which to concentrate its grants over a period of years.

The Corporation operates grant programs in four broad areas. The first is Education: Science, Technology, and the Economy. The second is Toward Healthy Child Development: The Prevention of Damage to Children. The third is Strengthening Human Resources in Developing Countries. The fourth is Avoiding Nuclear War. Grants that do not fit easily into these categories are listed in Special Projects. The following pages describe the major grants made during the year. Grants of \$25,000 or less are listed at the end of each subcategory, with a brief statement of purpose.

The foundation does not operate scholarship, fellowship, or travel grant programs. It does not make grants for basic operating expenses, endowments, or facilities of educational or human service institutions.

There is no formal procedure for submitting a proposal. All that is necessary for preliminary consideration is a statement describing the aims and methods of the project, the personnel involved, and the amount of financial support required. The officers review all proposals in light of their knowledge of the field and in relation to the Corporation's current priorities. They ask for supplementary information or a meeting when either would be helpful in making a judgment. The endorsement of the administrative head of an institution need not be sent with the initial proposal but will be requested before a favorable recommendation is made to the Corporation's trustees.

EDUCATION: SCIENCE, TECHNOLOGY, AND THE ECONOMY

The program, Education: Science, Technology, and the Economy, builds on the Corporation's long-term interests in the education of school-age children, college students, and adults and in access to high-quality education on the part of minority-group members and girls. The aim is to help all Americans, but especially young people, deal constructively with the scientific and technological transformations under way in American life.

The program has three areas of concentration. The first promotes the improvement of education in science, mathematics, and technology at the precollege level, through more effective uses of new technologies; through the linkage of science-rich sectors, such as industry, universities, and government laboratories, with the schools, particularly those in disadvantaged communities; and through curriculum development in science, math, and technology. The foundation also supports television programs and science reporting to improve science education generally.

The second major emphasis is on improving the access of minority-group members and girls to high-quality education in science, mathematics, and technology. There is a danger that a national preoccupation with science education will result in widening the distance in achievement between advantaged and disadvantaged students. If girls and more minority-group members are to become part of the economic mainstream, they will need a more sophisticated understanding of mathematics and science. Even for people in jobs not requiring technical training, basic knowledge of science and technology will be important. The Corporation is therefore supporting new instructional approaches for these target groups that will encourage them to study mathematics and science in secondary school and to consider careers in scientific fields. It is also supporting projects that alert policymakers, educators, and community representatives to the importance of strong educational programs in mathematics and science for minorities and girls.

The third area of concentration involves the examination of both the impact of science and technology on the economy and the ways in which the society can prepare for change, especially through education policy. Toward this end, the Corporation established the Carnegie Forum on Education and the Economy in 1985. In the past three years, the Forum explored the relationship between education and the performance of the American economy in both the domestic and the international contexts and considered the requirements for improving education in that light. The Forum established working groups to focus on specific problems, notably the preparation of teachers, and convened annual forums involving leaders from many sectors of American society as a means of placing the facts and policy choices before the American public. Henceforth, the work of the Forum will be pursued mainly through the Corporation's grant program.

American Association for the Advancement of Science

\$570,000

As the exponential growth of technology affects society in ever more diverse ways, college students can no longer be taught science and the liberal arts as if they were discrete entities. Without sacrificing the specialized knowledge necessary for participation in a highly complex culture, American colleges and universities must consistently graduate students who are neither "science illiterate" nor ignorant about the arts and humanities. The American Association for the Advancement of Science's (AAAS) Coalition for Education in the Sciences, composed of 80 scientific and technological societies representing a broad range of disciplines, is using this two-year grant to create the Project on Liberal Education and the Sciences. The Project is seeking to identify exemplary interdisciplinary undergraduate programs as well as to devise new model programs designed to provide interdisciplinary education appropriate to the various needs of science students, future science teachers, and students who major in other fields. Headed by Audrey B. Champagne, director of the National Forum on School Science, this project is the higher education analog to the Corporation-funded AAAS Project 2061, which seeks to answer fundamental questions about the scope of instruction precollegiate students should receive in order to function fully in the coming century.

National Executive Service Corps

\$392,000

A Corporation-supported study by the National Executive Service Corps (NESC) has indicated that many corporate and military employees are interested in teaching mathematics or science as a second, post-retirement career. This group of knowledgeable persons, who often retire in their fifties or early sixties, could prove to be a significant untapped source of qualified teachers for the nation's public schools, particularly in urban areas with large minority populations. NESC is using this second grant over an 18-month period to initiate four pilot training projects: two for corporate employees and two for members of the military. All four involve volunteer candidates who are within one year of retirement. Working with school boards and cooperating institutions of teacher education, NESC is devising a training sequence that begins with pedagogical courses, followed by practice teaching in public schools, leading finally to teacher certification. The intention is to move candidates as smoothly as possible from one career to another. The training programs will be used as the basis for further experiments which, when completed, will ultimately result in a teaching manual for nationwide dissemination.

WGBH Educational Foundation

\$335,120

WGBH-TV, the public station in Boston, is using this three-year grant to help defray the costs of producing *State of the World*, a ten-part public television series that will explore the complex interactions between human activity and the major environmental issues facing the world today. Produced by members of WGBH's Nova

Science Unit (which is also responsible for the award-winning science television series, *Nova*), with research support from the Worldwatch Institute, *State of the World* will attempt to convey a more comprehensive picture of human impact on the environment than is ordinarily available through the news media. It will take into account the effects of various political, social, and economic factors and examine the intricate web connecting each major environmental problem with others. When completed, the series will be broadcast over 314 Public Broadcasting Service stations to an estimated 12 million viewers. WGBH and its collaborators are also developing a campaign to distribute audiovisual cassettes of the series, along with teacher guides, to high school and college classrooms as well as to museums, libraries, and community organizations. They are using the series as the basis for an accredited college-level telecourse in environmental science and for a general book to be published prior to the initial broadcast.

Pennsylvania State University

\$250,000

An innovative course of study commonly referred to as “Science, Technology, and Society” (STS), which addresses relationships between the sciences and the humanities, is increasingly advocated by educators, scientists, engineers, journalists, and representatives of public interest groups as a vital aspect of modern education. Despite its widespread support, however, this new academic discipline lacks a central organizing body to help establish it as an essential field of study for all primary, secondary, college, and adult students. To that end, Professor Rustum Roy, chair of the Science, Technology and Society Program at Pennsylvania State University, is using this three-year grant to launch a professional, interdisciplinary STS society. The new society will formally assume leadership of the annual Technological Literacy Conference, organized two years ago by the University, which last year drew over 700 participants. Plans for the STS society arose through a series of five workshops that took place over the past nine months, funded by a discretionary grant. This second grant is helping to support the society in its first three years of operation, after which it is expected that revenues from the annual national meeting, a projected STS newsletter, and membership dues will meet its operating costs.

Hall of Science of the City of New York

\$180,000

The Hall of Science of the City of New York, more commonly known as the New York Hall of Science, is using this two-year grant to create a model for school/museum collaboration that builds on the well-established practice of museum visits by science classes. The Distinguished Teachers Program, as the model is called, brings classroom teachers together with the Hall’s education department on all aspects of the school visit, from development of pre-visit materials to participation in instruction at the museum. The program focuses on grades four through six, the peak years for museum visits. During the first year of the two-year program, three teams of five experienced science teachers from 15 different New York City school

districts are meeting monthly with Hall staff members to learn about the museum and its exhibits, to develop activities that link the exhibits to the school science curriculum, and to plan the summer program. In the second year, the distinguished teachers will distribute the museum visit kits they have developed to fellow teachers at the appropriate grade levels within their schools. Following the two-year program, the distinguished teachers will serve as advisers to the Hall and help select the next group of distinguished teachers. Through peer training, the Distinguished Teachers Program will reach about 3,750 teachers and their 113,000 students in the first two-year cycle.

Los Angeles Educational Partnership

\$151,400

The Los Angeles Educational Partnership (LAEP) was established by members of the Los Angeles business community in 1984 to help strengthen local science education in grades one through twelve, with a particular eye toward stimulating student interest in math or science teaching as a profession. The Corporation's 28-month grant is permitting LAEP to develop Target Science, an experimental program centered on six Los Angeles high schools and the junior high and elementary schools that prepare their students. Target Science promotes improved scientific training for the students (80 percent of whom are minority members) by better educating science teachers, administrators, and parents through collaboration with nearby universities, technological industries, museums, and foundations. Particular attention is being paid to the training of elementary-level teachers, who often have little scientific background. Increased cohesiveness of the science curriculum between grade levels is also emphasized, along with the development of professional collegiality between teachers and other science professionals in industry and higher education.

Cleveland Education Fund

\$150,000

The Cleveland Education Fund (CEF) has worked since 1984 to improve the quality of public school education in Cleveland, Ohio. It is currently enlisting universities, museums, and local corporations to help enrich and revitalize the education of public school science teachers so that they can offer students a more relevant, contemporary science education. CEF is using this three-year grant to develop the Cleveland Collaborative for Science Education, a model program dedicated to the improvement of science teaching for the city's predominantly poor and minority students. The collaborative is working with cooperating institutions to provide updated and expanded training for science teachers. Summer programs devoted to new developments in various scientific disciplines are being offered by local colleges and universities. Corporations are sponsoring workshops designed to inform teachers about careers in science and technology, so that they can relay that information to their students. Also being offered are workshops at the museum of natural history and the municipal zoo and a grants program for innovative secondary school science projects. These efforts are aimed at producing a core group of

better-informed science teachers, who will be instrumental in disseminating information among their peers.

Target '90/Goals for San Antonio

\$150,000

Target '90/Goals for San Antonio was established in 1983 to implement needed reforms in the San Antonio community by the year 1990. Much of its activity is focused on improving the quality of science education in the city's 12 school districts, which have approximately 200,000 students, of whom 65 percent are members of minority groups. This two-year grant is helping Target '90 found the San Antonio Science Collaborative, which seeks to encourage cooperation among public schools, universities, and industries. The collaborative has developed a model program based in the three San Antonio school districts with the highest minority, dropout, and illiteracy rates. The program's cornerstone is a series of summer term professional training courses offered by the University of Texas' Health Science Center. Last summer, the 16 teachers selected for the first course attended an intensive ten-day cycle of lectures, laboratory sessions, and slide shows on microbiology. These teachers are now replicating the training for peers in their home districts. Summer courses in other scientific disciplines are planned for the future. Also planned are internships for science teachers with local industries engaged in technological research, a system of "mini-grants" that will back teachers in developing innovative classroom exercises, and development of a science career awareness week in local high schools.

Stanford University

\$115,500

During the past two years the Corporation has helped finance several model approaches to the improvement of science education in inner-city schools through collaboration between schools and such science-rich community resources as industry, universities, and museums. This 18-month grant will fund a monograph by J. Myron Atkin, former dean of the School of Education at Stanford University, on such collaborative experiments. In his monograph Atkin will informally evaluate the effectiveness of the various projects. He will also attempt to understand the projects' impact on classroom teachers; offer reasoned commentary about the long-term viability of such programs from the point of view of all key participants; and stimulate further thought and action about school/community resource cooperation by describing current activities and suggesting ways to shape the movement. The monograph, to be completed by the fall of 1988, will be published and widely disseminated.

International Student Pugwash

\$100,000

International Student Pugwash, created in 1979, is an ongoing series of biennial conferences designed to help college students from a variety of disciplines better understand the role of science and technology in society. The conferences bring

together hundreds of selected students from around the world to meet with scientists and humanists from universities, government, private foundations, and industry for a week of intensive dialog and debate on public policy issues. With this three-year grant, the Corporation is helping to support International Student Pugwash in its biennial conferences and in its expanding year-round programs, which include campus chapters for wider dissemination of the information offered at each conference, a careers program designed to inform students about available internships in scientific and technological fields, and an outreach program that produces newsletters and an alumni directory. International Student Pugwash is currently working with the American Association for the Advancement of Science's Office of Opportunities in Science and Howard University to increase minority-member applications to future conferences.

Discretionary Grants

<i>Educational Testing Service</i> , for scoring computer competence items from the 1986 National Assessment of Educational Progress	\$25,000
<i>Florida, University of</i> , for development and evaluation of a videodisc system for elementary science curricula	\$25,000
<i>Harvard University</i> , toward a panel on the future use of technology in education	\$25,000
<i>National Academy of Sciences</i> , for dissemination of a monograph on the teaching of higher-order skills	\$25,000
<i>National Academy of Sciences</i> , toward a conference on teacher education in mathematics	\$5,685
<i>National Congress of Parents and Teachers</i> , for distribution of a newsletter on international comparisons in mathematics education	\$8,225
<i>Stanford University</i> , for planning materials and training for teachers on the human biology core curriculum	\$25,000

Encouraging girls and minorities in mathematics and science

Massachusetts Institute of Technology **\$1,182,000**

American colleges and universities continue to graduate disproportionately low numbers of minority students in virtually all disciplines. Leaks in the "educational pipeline" must be plugged at every stage from the early grades through college and graduate school if this nation is to produce more able minority college graduates. A number of exemplary programs now exist at various levels of education, but they are essentially unrelated to one another and lack a coherent set of national objectives. The Massachusetts Institute of Technology (MIT) is using this two-year

grant to develop a comprehensive national plan for minority education, one that will specify goals, devise new strategies, and identify successful existing programs that need wider implementation. Under the leadership of an executive staff based at MIT, a 33-member National Council for Quality Education for Minorities is working closely with a 15-member resource group of educators and administrators with experience in the provision of quality education to minorities. The plan developed jointly by these two groups will, when completed, contain specific recommendations for reform at all levels of minority education as well as strategies for increasing awareness and participation among parents, the larger community, and public policymakers. The plan will be disseminated to educational, business and government institutions, foundations, the media, and social, religious, and community organizations.

Association of Science-Technology Centers**\$433,700**

The Association of Science-Technology Centers (ASTC), an organization of more than 200 science museums and related institutions across the country, is using this three-year grant to work with community-based organizations, such as the National Urban Coalition and the Girls Clubs of America, to examine ways in which science and technology museums can more effectively serve minority, female, and handicapped students. The ultimate goal is to encourage more members of those groups to pursue education in science or technology. This grant builds on the Corporation's 1986 grant, which supported publication of a museum survey conducted jointly by ASTC and the Linkages Project of the Office of Opportunities, American Association for the Advancement of Science. That survey concluded that minorities, women, and the handicapped were under-represented in museum exhibitions and on museum staffs and that exhibits were largely inaccessible to the disabled. With this second grant ASTC is promoting greater use of science-technology museums within the educational programs of community-based organizations. It is also working with those organizations to define various actions that museums can take independently to make their exhibitions more inclusive of minorities, women, and disabled persons; to market their programs more effectively; and to make their own staffs and boards more representative of the communities they serve.

The University of California, Irvine**\$315,000**

The shortage of minority students graduating from American colleges is especially severe in the fields of mathematics and science and in math and science teaching. Since 1983 the University of California at Irvine has been working through its Student/Teacher Education Project (STEP)—a model of university/school partnerships—to improve the quality of education at middle schools and high schools in the Santa Ana Unified School District, where 87 percent of the students are members of minority groups. The Corporation's 30-month grant is enabling the University to develop "The Next Step: A Partnership for the Advancement of

Learning" in conjunction with three other area colleges: Rancho Santiago Community College, Chapman College, and California State University at Fullerton. "The Next Step" extends the STEP program to include elementary schools, curricular reform, the development of math and science connections between grade levels, teacher development, and family outreach. The collaborative model represents recognition of the serious need to strengthen the academic preparation of minority students across the educational continuum and to increase the number of students equipped to pursue math- and science-based careers, including teaching. The project will result in publication of *A Handbook for the Establishment of Partnerships for the Advancement of Learning*, which will provide designs of the completed model for statewide and national dissemination to educators.

Stanford University

\$290,000

By the year 2000, the majority of California's school population will consist of different minority groups, including a substantial percentage of children with limited English proficiency. Since 1978, Stanford University's Program for Complex Instruction (PCI) has been addressing the need to improve elementary school science education by using an innovative approach to teach higher-order thinking skills. Under the PCI system, children from different cultural, racial, and linguistic backgrounds learn math and science concepts through group activities and problem solving. The program also improves the structure and organization of teaching, emphasizing teacher leadership and collegial evaluation. A 1986 Corporation grant helped Stanford, in collaboration with the California State University system and the Stuart Foundations, to create a plan for dissemination of the PCI method to teachers and school administrators throughout the state of California. This second grant, which covers a three-year period, is enabling Stanford to document PCI's impact on students, teachers, and faculty members and to evaluate its effectiveness and practicality. Stanford plans to produce a PCI trainer's manual for use by additional schools, to develop a standardized system for evaluating teachers' and students' performance, and to publish in book form a final report on the PCI method.

California State University, Dominguez Hills

\$270,000

The current teacher shortage has become especially dramatic among minority groups, whose enrollment in teacher preparation programs is now so low that by 1990 blacks will comprise only 5 percent of the nation's teaching force and Hispanics even less. The California State University at Dominguez Hills, which has the highest concentration of minority students in the 19-campus California State University system, has initiated the Pool of Recrutable Teachers Program (PORT), designed to boost minority participation in the field of education. PORT and Harbor Community College have formed a partnership with the Los Angeles Unified School District to develop, test, and disseminate a model junior-high-through-university teacher recruitment and preparation plan. The Corporation's three-year grant will enable faculty members and administrators to work together

with junior high and high schools to increase the pipeline of minority students who want to teach and who can hurdle the various barriers to college and pass the state certification exam. It will also fund the reportage of PORT's activities and results to the greater academic community through a newsletter, conferences, and journal publications.

Girls Clubs of America

\$211,000

Deficient school science programs coupled with a general lack of encouragement contribute heavily to the under-representation of women, especially women from minority groups and low-income families, in the scientific professions. In 1985, Girls Clubs of America (GCA) launched an after-school science program for girls, known as Operation SMART (Science, Math, and Relevant Technology), currently being tested at seven sites in the Northeast. The Corporation's two-year grant is financing a collaboration between Operation SMART and the Boston Museum of Science, aimed at increasing the training of Girls Club staff and at developing a model museum-based training program for use by Operation SMART and other youth-serving agencies. Under the program, called Operation SMART Museum-link, museum personnel instruct GCA staff and adolescent "peer leaders" in the methods of conducting scientific inquiry. GCA and the museum are also working together toward devising more effective methods for teaching science to adolescent girls. At the end of the two years a report as well as a handbook with advice and guidelines for starting a Museumlink project will result.

Discretionary Grants

<i>California, University of, Los Angeles</i> , for development and dissemination of training materials on the teaching of science to Hispanic and native American students	\$24,670
<i>National Association for Equal Opportunity in Higher Education</i> , for participation by outstanding students in mathematics, science, and engineering in the 1987 White House Initiative on Historically Black Colleges and Universities Symposium	\$25,000
<i>New York, State University of, Stony Brook</i> , toward a workshop on the role of faculty members in recruiting and retaining minority graduate students	\$25,000
<i>Wisconsin-Madison, University of</i> , for dissemination of a monograph on improving mathematics and science education for minorities and girls	\$25,000

tional Board and to state-sponsored teacher assessment projects as well as to other research groups working on teacher assessments over the next decade.

National Board for Professional Teaching Standards

\$1,000,000

A planning group charged with the creation of a professionally governed national teacher certification board, similar to boards that help set standards for the legal and medical professions, was convened this year by the Carnegie Forum on Education and the Economy. At the Forum's annual conference in May 1987, the National Board for Professional Teaching Standards was created. Its mandate is to provide fair, rigorous, and reliable means of identifying able teachers in prekindergarten through high school. Chaired by James B. Hunt, former governor of North Carolina, the 33-member group is composed of distinguished classroom teachers, school administrators, state and local officials, and business leaders. The idea for a national certification board was originally put forth by the Forum in its 1986 report, *A Nation Prepared: Teachers for the 21st Century*, which emphasized the urgent need to attract more and better-qualified teachers to the nation's schools within the next decade. The group is using this one-year grant to establish the board and to begin formulation of uniform teacher assessments for granting certificates that would complement state licenses. The anticipated consequences of exacting national standards for certification are many. The status of teaching as a profession would be enhanced, and local school boards, being better equipped to make distinctions as to role, responsibility, and pay, could more efficiently deploy teachers' energies. In addition to rewarding the best teachers, the board will work to identify deficiencies in the preparation of candidates that need to be corrected before certificates are granted.

National Governors' Association Center for Policy Research and Analysis

\$890,000

A cornerstone of the Carnegie Forum on Education and the Economy's report, *A Nation Prepared: Teachers for the 21st Century*, was the recognition that its agenda could only be carried out with the sustained leadership of state governments. The National Governors' Association (NGA) in August of 1986 voted its unanimous endorsement of the Forum's recommendations, which include the upgrading of teacher training and assessment and the improvement of preparation for students who will one day make up the work force in an economy dramatically changed by advances in science and technology. This one-year grant is enabling the NGA's Center for Policy Research and Analysis to implement the Forum's findings by serving as a clearinghouse and technical assistance center for states and school districts that wish to adopt the Forum's program. The Center is commissioning scholars and policy analysts to research plans for implementation, including the development of model state legislation, so that the NGA will be able to provide expert help both on substantive and political issues. It will also make small matching grants to as many as 15 states to help cover expenses involved in implementing

the Forum's plan. Among the organizations pledged to support the project are the American Association of School Administrators, the American Federation of Teachers, the Council of Chief State School Officers, the National Association of State Boards of Education, the National Education Association, and the National School Boards Association.

University of California, Berkeley

\$244,000

As the technological revolution gathers momentum throughout the world, the United States may be falling behind other countries in educating the enormous body of skilled workers needed to produce high-quality goods both for domestic use and for export. The Berkeley Roundtable on the International Economy (BRIE), an interdisciplinary team of scholars organized by the University of California at Berkeley, was formed in 1982 to research various methods by which U.S. industry and government can meet the demand for a large, highly educated work force. Under a previous grant, BRIE produced a study and the book, *Manufacturing Matters: The Myth of the Post-Industrial Economy*. Several more books are in progress. This second one-year grant is supporting BRIE's continuing study of ways in which specific corporations are training employees in the use of increasingly sophisticated technology. BRIE's current study includes extensive research into the new, more diversified "chains of command" that may be required within corporations as the highly specialized technical knowledge of individual workers renders traditional relations between management and labor obsolete.

Northeast-Midwest Institute

\$123,100

The Northeast-Midwest Institute, a nonpartisan regional policy center formed in 1977, is working to ensure the future economic vitality of a 19-state region that has historically formed the nation's industrial heartland. The Institute bases its work on the premise that U.S. economic health will ultimately depend on a large, technologically skilled work force and that education is therefore the foundation of economic growth. To this end, the Institute is using a one-year grant to conduct a series of six one-day field conferences, each sponsored and chaired by a member of Congress. The conferences focus on ways the private sector can work with schools to improve their ability to prepare an emerging work force. Each conference brings together 75 executives, academics, labor leaders, and state and local officials. The Institute will prepare a final report based on discussions and recommendations from all six field conferences, to be distributed to all participants as well as to other government officials, the media, and teacher organizations.

Discretionary Grants

American Association for Higher Education, for a meeting for college and university presidents on the teaching profession

\$25,000

<i>Education Commission of the States, toward planning for a national program to coordinate education, health promotion, and ethics training for young people</i>	\$25,000
<i>Education Commission of the States, toward planning for a national program to coordinate education, health promotion, and ethics training for young people</i>	\$24,900
<i>Foundation for Excellence in Teaching, toward a conference on recruitment, retention, and renewal of teachers</i>	\$24,700
<i>Harvard University, toward planning for the Science, Technology, and Public Policy program</i>	\$25,000
<i>National Association of Secondary School Principals, toward a leadership training program for urban public school principals</i>	\$25,000
<i>Stanford University, toward a conference for members of Congress on economic trends affecting higher education</i>	\$25,000

TOWARD HEALTHY CHILD DEVELOPMENT: THE PREVENTION OF DAMAGE TO CHILDREN

Although the majority of American children grow up to be strong and capable adults, substantial numbers of children and adolescents encounter serious problems along the way that affect their survival or leave their entire lives warped or unfulfilled. The foundation's program, *Toward Healthy Child Development: The Prevention of Damage to Children*, focuses on four of the major kinds of serious harm that befall children and young adolescents: school failure, school-age pregnancy, childhood injury, and substance abuse. In two of these areas—school failure and school-age pregnancy—the Corporation funds unsolicited proposals. In the other two—childhood injury and substance abuse—it only initiates projects.

The foundation's interest in the prevention of school failure encompasses a variety of approaches, including efforts to expand preschool education and family support programs in low-income communities; to improve achievement in junior high schools and reduce school dropout; and to monitor and strengthen policies and programs that upgrade the education of minority students.

The childbearing rate of American teenagers is among the highest in the industrialized world. Given the Corporation's limited resources and the fact that there are already a number of programs to prevent or delay repeat pregnancies among school-age girls, the Corporation is concentrating on efforts to prevent the first pregnancy among young adolescents. It funds the development and testing of a variety of intervention programs designed to help girls and boys develop responsible sexual attitudes and behavior and a clearer sense of alternative futures to early parenthood. Projects supported are variously exploring the roles of peers, parents, schools, community-based organizations, and the media.

Finally, in recognition of the range of serious problems encountered by many adolescents from all social groups, the Corporation has created the Carnegie Council on Adolescent Development to generate public and private interest in measures that prevent seriously damaging problems in adolescence and to promote healthier adolescent development. The Council has a three- to five-year life, with a membership of 27 leaders from the fields of science, law, business, government, the media, health, religion, education, and youth-serving agencies. Thus far it has established a Task Force on Education of Young Adolescents, begun to work with representatives of the media on adolescent problems, and initiated an investigation of promising preventive interventions and a synthesis of basic research on adolescence. The Council, a project of the Corporation, has offices in Washington, D.C.

MELD

\$521,000

Since 1975 MELD (originally Minnesota Early Learning Design) has developed programs and trained parent-group facilitators to provide new parents with information on child health and development, child guidance, family management, and personal growth. MELD has also created programs for parents with special needs, such as parents of disabled children, and successfully replicated its programs in many cities and foreign countries. With Corporation support, MELD is currently adapting its program for low-income Mexican American families. Under this 42-month grant, MELD is developing and testing the program in two sites in California, training site coordinators, implementing the program with several groups of parents, and evaluating the outcomes. The grant supports the program development and process evaluation, with local funding covering program implementation costs. Ann Ellwood, executive director of MELD, heads the project, and Douglas R. Powell, associate professor in the Department of Child Development and Family Studies at Purdue University, is directing the evaluation.

National Conference of State Legislatures

\$492,000

Long-term studies have clearly shown the value of preschool education in promoting academic achievement and reducing school failure among children from low-income families. However, less than half the children in low-income families attend federally funded preschool programs. For the past two years the National Conference of State Legislatures (NCSL) has been meeting the need of state legislatures for information on early education programs and technical assistance in establishing preschool programs. During that time the NCSL has responded to more than 300 requests for information, conducted an analysis of the organization and financing of early childhood education and child-care programs across the country, and published the findings in a report entitled *State Approaches to Early Childhood Education*. In addition, the NCSL staff was able to provide technical assistance to four states. The current two-year grant is enabling the NCSL to meet the greater demand for its services from state legislatures. The staff will provide technical assistance to 12 states and publish reports both on comprehensive approaches to early education and child-care services and on a number of more specific topics, such as teacher certification for early education programs, standards and regulations, and public/private cooperation.

High/Scope Educational Research Foundation

\$460,500

For more than two decades the High/Scope Educational Research Foundation has been following the progress of one group of low-income children who attended the experimental Perry Preschool Program and a similar group of children who did not. The research results, presented in a 1984 monograph entitled *Changed Lives: The Effects of the Perry Preschool Program on Youths at Age 19*, clearly demon-

strate the cost-effectiveness of high-quality preschool programs for these children. Those who attended the program achieved better scholastically, committed fewer delinquent or criminal acts, and had fewer pregnancies than did the control group, ultimately costing taxpayers six times less than the comparison group. These findings have already substantially influenced the direction of early childhood policies and practices in the nation and are even more important as the number of children being raised in poverty and single-parent households increases. The Corporation has been supporting the work of High/Scope and its founder David P. Weikart since 1967. The current grant is allowing High/Scope to collaborate with various national organizations on the design and implementation of preschool programs, to hold seminars for school administrators and state policymakers, and to conduct surveys of existing programs to determine the amount and quality of services currently available for preschool children. High/Scope's researchers plan to write a book summarizing the history of the Perry Preschool Program and related research and analyzing its impact on public policy.

Avance-San Antonio**\$400,000**

Avance-San Antonio was founded by Gloria G. Rodriguez in 1973 as a parent-child education program for low-income Hispanic families. While parents are given information on child development and participate in English-language training and other adult education activities, their children take part in a model child-care program staffed by former Avance parent participants, local teacher trainees, and Avance personnel. In order to improve its services and strengthen the case for similar programs in other parts of the country, Avance is undertaking an evaluation of its program with Corporation support. The evaluation will be conducted over three-and-a-half years, involving 480 low-income Mexican American mothers of preschool-age children. The experimental group of participating mothers attends weekly classes on various aspects of child development, education, and family life. They participate and observe in the day-care center and have home visits and special field trips with the staff. During and after the program, a team of researchers is assessing the participants and control groups on the quality of the home environment; parent-child interaction; child behavior; mother's knowledge, skills, and attitude; and utilization of community resources. Rodriguez directs the project, and Dale L. Johnson, professor of psychology at the University of Houston, is director of research.

Columbia University**\$300,000**

This grant, together with \$900,000 from the Ford Foundation, is supporting the planning, establishment, and first two years of operation of the National Resource Center for Children in Poverty. Located at Columbia University's School of Public Health, the Center will gather and disseminate information about promising approaches to help foster the healthy development of children in low-income communities. The Center will initially focus on three areas of activity: maternal and

child health services, community family-support systems, and early childhood education and child care. After reviewing current policies and services and identifying promising programs and approaches, the Center plans to collaborate with state health, educational, and social service agencies to develop model programs for poor families and children. If feasible, the Center may appoint regional fellows to assist states in developing programs and to offer technical assistance and advice to other agencies. The Center will disseminate its findings to state and local policy-makers, researchers, and service providers through conferences, seminars, and publications. The Center is directed by Judith E. Jones, associate clinical professor of public health in Columbia University's Faculty of Medicine.

Discretionary Grants

<i>California, University of, Los Angeles, for a follow-up study of the school performance of children raised in alternative family lifestyles</i>	\$25,000
<i>National Association of Latino Elected Officials Education Fund, toward a conference on Latino children in poverty</i>	\$24,800

Preventing school failure

Mexican American Legal Defense and Educational Fund **\$750,000**

The Mexican American Legal Defense and Educational Fund (MALDEF) was founded in 1968 to fight discrimination against Hispanics in employment, education, access to higher education, political participation, and immigration policies. Since 1974 the Corporation has contributed to MALDEF's program in education. The current three-year grant is allowing MALDEF to use advocacy and litigation to promote desegregation, access to understandable instruction, and fair resource allocation; to monitor the implementation of federal and state laws and policies in states with the highest proportion of Hispanic students; to develop and implement programs in dropout prevention for Hispanic students; to encourage greater numbers of Hispanic teachers; and to link high school graduation standards with remedial programs tailored to the needs of language-minority children. Antonia Hernandez is the president and general counsel of MALDEF, and Norma V. Cantu is director of the education litigation program.

NAACP Special Contribution Fund **\$696,000**

Since 1980 the Corporation has supported the NAACP Special Contribution Fund's School Desegregation Program to end educational segregation and inequalities in the educational opportunities available to minority students. The Fund operates through legal suits brought in conjunction with public information and community advocacy campaigns carried out by the local NAACP branches. Under the current three-year grant, the Fund will monitor existing court decisions on desegregation

to ensure that agreements are carried out and to prevent school districts, particularly in the South, from re-segregating their schools. A second set of activities is concerned with improving the quality of education. The Fund's attorneys are studying the possible use of state constitutions and education laws to diminish the discrepancies between the educational opportunities of inner-city minority children and other children. In addition, the legal department will work with the education department of the Fund to challenge discriminatory standardized testing procedures. This grant covers approximately half the costs of the Fund's education litigation.

NAACP Legal Defense and Educational Fund

\$555,000

Since its founding in 1939, the NAACP Legal Defense and Educational Fund (LDF) has worked to combat racial discrimination in education, employment, housing, voting, and the administration of justice. Corporation support for the LDF has totaled more than two million dollars in the past two decades. With this three-year grant, the Education Litigation Program is concentrating on two major areas. The first and larger area addresses key issues concerning the quality of elementary and secondary education: in-school practices such as tracking; the quality of education in majority-black school districts; dropout rates among black students; and disparities of funding of school districts. In the second area, LDF plans to litigate the next two phases of a long-standing case dealing with the failure of southern states to comply with court orders calling for desegregation of colleges and universities. The LDF is also examining the use of state laws and sanctions to guarantee equal educational opportunities for minority children and legal strategies to end discrimination in hiring minority teachers. The long-term goal of the LDF is to establish that the U.S. Constitution prohibits relegating disadvantaged children to an inferior system of education simply because they are poor.

Council of Chief State School Officers

\$400,000

According to a study of the National Assessment of Educational Progress, language-minority children, especially those who are Hispanic, read at a level considerably below the national average, are less likely than children of English-language backgrounds to take advanced science and mathematics courses, and are more than twice as likely to drop out of school. Fragmented policy development in state education departments, lack of resources, and questions about the best methods of instruction have prevented language-minority children from receiving an adequate education. This two-year grant is enabling the Resource Center on Educational Equity of the Council of Chief State School Officers to carry out a project to improve state education department policy toward language-minority children. Center staff members have reviewed the research literature on the needs of such students, on programs to meet their needs, and on second-language acquisition. They have identified state programs that might serve as models and will publish their findings in a report for state and local policymakers. In the second year the

Center is conducting regional conferences to present its findings and to assist individual state education departments in implementing its recommendations. The project is managed by Cynthia G. Brown, director of the Resource Center.

Education Commission of the States

\$354,000

Over the past few years state reform of public schools has resulted in higher standards for graduation without complementary provisions to help marginal students reach these higher standards. As a consequence, more students are likely to drop out of school. The Education Commission of the States, concerned with this side effect of reform, is launching a project to examine the role of schools in educating at-risk youth and in coordinating the work of other agencies serving adolescents. This initiative has four parts: an analysis of school practices that successfully keep students in school and of ways in which schools can better coordinate services with other agencies serving at-risk youth; a survey of existing state dropout prevention programs; regional conferences for state and local policymakers on how to develop more effective programs; and ongoing technical assistance to selected states in developing or strengthening programs for these students.

Children's Television Workshop

\$250,000

Although the reading levels of American children have improved somewhat over the past decade, many children, particularly minority children, do not have reading skills appropriate to their age, and students' writing proficiency is also low. The Children's Television Workshop (CTW), producer of *Sesame Street*, *The Electric Company*, *3-2-1 Contact*, and *Square One TV*, plans to develop a literacy series for six- to nine-year-old children. The series, which will combine television with supporting print, video, and computer software, is intended to facilitate the transition from the early elementary school tasks of learning to read and write to the later elementary grade tasks of reading and writing in academic areas. This grant is providing partial support for a one-year research and development phase. During this year, CTW is consulting with experts in reading and writing, reviewing classroom curricula and developing the series' curriculum; testing possible formats for television and the print, video, and software materials that will accompany the show; and investigating ways to distribute the supporting materials. By mid-1988 CTW expects to have a plan for the production of 65 half-hour daily programs and the development of supporting materials and activities.

Hispanic Policy Development Project

\$120,000

According to the National Center for Education Statistics, 26 percent of Hispanics do not graduate from high school, a rate that is almost twice the national average. To address this problem, the Hispanic Policy Development Project (HPDP) is sponsoring an awards competition to promote collaboration among researchers, legislators, policymakers, and practitioners. HPDP is seeking to encourage part-

nerships between researchers, who gather information about the causes of Hispanic underachievement, and policymakers or practitioners, who are in a position to act on the information, to lower the dropout rates, and to raise the school achievement levels of Hispanic junior and senior high school students. Awards of up to \$15,000 are being made. The HPDP staff meets with the grantees before work commences to clarify procedures and expectations and again midway through the project to review progress and resolve operational difficulties. The project is headed by Rafael Valdivieso, vice president for education and research at HPDP.

New York University**\$83,000**

In 1986 the Ford Foundation initiated a program to engage large cities in community planning efforts to reduce their school system's dropout rates. In 21 cities, school systems and major community organizations are collaborating to study the reasons that children drop out of school in their cities and to design programs to reduce the dropout rate. This grant is providing funds to New York University for documentation and evaluation of the projects. Directed by Terry A. Clark, adjunct assistant professor at New York University's Graduate School of Public Administration, and William E. Bickel, senior scientist at the University of Pittsburgh's Learning Development and Research Center, a team of minority social scientists and graduate students are developing data-collection instruments and training assistants in their use to ensure uniformly accurate data. Reports on the projects will be prepared for the funding foundations, for the agencies assisting in the projects, and for a broader audience of educators and policymakers.

Council of Chief State School Officers**\$80,000**

The Council of Chief State School Officers (CCSSO) is undertaking a study of how school systems might more effectively serve children and adolescents who are at risk of dropping out of school. Under the direction of Cynthia G. Brown, the CCSSO initiative has several goals: to make chief state school officers more aware of the growing number of at-risk students, to identify obstacles to meeting their needs, to identify existing effective educational programs for them, to develop model state legislation to ensure appropriate educational services for these students in the future, and to encourage states to carry out new initiatives. Activities in the first year, to which this grant contributes, include a week-long summer institute for the 50 chief state school officers, a study commission to identify both promising programs and obstacles to their implementation on a state-by-state basis, a work group to draft model legislation, and the development of a five-year plan of action to help at-risk students. The CCSSO project to improve educational opportunities for language-minority children (see pages 39-40) will contribute to this larger effort.

Committee for Economic Development**\$50,000**

The Committee for Economic Development (CED), an independent research and educational organization of 200 business executives and educators, released a study

in 1985 entitled *Investing in Our Children: Business and the Public Schools*, which urged, in part, that special efforts be made to improve the performance of low-achieving, disadvantaged children. The current grant enabled CED to follow up with a second report on the educational needs of disadvantaged children and programmatic and investment strategies to meet those needs. The report, *Children in Need: Investment Strategies for the Educationally Disadvantaged*, defined the population of children at risk of educational failure and explained why U.S. business must become interested in preventing this failure. The report considered interventions with young children that lead to greater achievement in school and explored ways to restructure education for middle and high school students to reduce dropout, pregnancy, and drug abuse rates. The report discussed means for business to improve the education of at-risk students and made policy, program, and funding recommendations. Additional support for the preparation and dissemination of the report was received from several foundations.

Discretionary Grants

<i>National Center for Policy Alternatives</i> , for dissemination of a study of new federal and state roles in civil rights policy in education	\$4,000
<i>Structured Employment Economic Development Corporation</i> , for preparation and dissemination of a summary of a report on model programs for dropout prevention and services for dropouts	\$25,000

Preventing adolescent pregnancy

Meharry Medical College **\$750,000**

Since its founding in 1876, Meharry Medical College has concerned itself with the health and medical needs of minority and disadvantaged populations. In the early 1980s a group of faculty members, led by Henry W. Foster, Jr., chairman of the Department of Obstetrics and Gynecology, examined the problems of adolescent pregnancy in the black community. It concluded that existing approaches to preventing early pregnancy, which rely primarily on sex education and access to contraception, were not effective with low-income adolescents, who have few hopes and aspirations and cannot see how having a child will adversely affect their lives. An interdisciplinary group of Meharry faculty members has planned a model program to prevent pregnancy among high-risk adolescents. Entitled "I Have a Future," the program is designed to motivate both male and female adolescents to reduce early pregnancy and adopt positive lifestyles. The program offers comprehensive medical services; a computer-based educational program that promotes literacy while teaching health and personal responsibility; social, athletic, and recreational activities, partially organized by the teenagers themselves; and a parent program. In its first three years, supported by the current grant, the program is also training health professionals to deal effectively with adolescent pregnancy and

related issues. Targeted to nearly 800 adolescents living in two low-income housing projects, "I Have a Future" will be evaluated against a control group at two similar housing projects in Nashville.

Children's Defense Fund

\$400,000

In 1984 a Corporation grant to the Children's Defense Fund (CDF) included funds to begin a media campaign on the problems of adolescent pregnancy. The goals of CDF's media efforts are to create a national climate of concern about adolescent pregnancy, develop relationships with community groups concerned with the problem, and educate the media about the importance of efforts to prevent adolescent pregnancy and foster self-sufficiency in young people. In the first part of the media campaign, designed primarily to reach adults, CDF placed posters in 12 cities across the country, printed and disseminated pamphlets, and sponsored public service announcements on radio and television. The second phase of the campaign, supported by this two-year grant, is intended to reach adolescent boys and girls and is being extended to more cities. Radio public service announcements targeted to 11- to 13-year-old black males are being developed in collaboration with black program directors and disc jockeys at southern radio stations, and similar messages are anticipated for Hispanic males and females. CDF is producing a music video that will be run as a trailer in selected movie theaters and on commercial and cable television channels. Its media campaign is being financed through grants from foundations and corporations, the sale of posters and publications on adolescent pregnancy, and *pro bono* professional services from media companies.

Center for Population Options

\$250,000

Several years ago the Center for Population Options (CPO) established a media office in Hollywood to stimulate responsible programming about adolescent sexuality and pregnancy. The current two-year grant is allowing the media office to continue its free media advisory service, which provides information, referrals, and script review to writers, directors, and producers. CPO is conducting seminars and round table discussions on specific topics for network executives, producers, and television and movie critics. It also supports an awards program that recognizes responsible programming on sexuality issues. In addition, CPO will produce a series of audiovisual materials including a videotape entitled *Teen Pregnancy and the Media*. Intended primarily for media professionals, it will also be distributed to cable, independent, and public television stations, schools, community groups, youth-serving agencies, and religious organizations as an educational tool to raise awareness about adolescent problems. Two audiotapes on learning about sex, discussing sex with parents, and the difficulties of early parenthood will be made by popular entertainment figures. The tapes will be made available to schools and organizations dealing with teenagers. Additional funding is provided by the Arca and General Service foundations.

National Center for Youth Law

\$203,000

In the past five years over 100 health clinics have been established either within schools or on their grounds, providing such medical services as physical examinations, treatment for minor accidents or illnesses, and counseling about substance abuse, diet, mental health problems, and family planning. These school-based clinics, generally funded by outside sources and managed by independent health agencies, offer medical care to otherwise under-served adolescents and show promise as a way to reduce pregnancy, substance abuse, and school absenteeism. Many questions about the legal and ethical aspects of these clinics remain unanswered, however. The Adolescent Health Care Project of the National Center for Youth Law, a San Francisco-based public interest law firm, is using this two-year grant to examine such issues as the provision of health services to adolescents with or without parental consent; the legal requirements and liabilities of schools, school officials, and the clinic staff; and confidentiality rules. The project staff is producing and publishing a manual on consent laws in each state and monographs on consent and confidentiality issues in school-based clinics that are financed by public and private funding. The staff also responds to inquiries, provides technical assistance to schools wishing to open clinics, and conducts training workshops on legal issues.

Education, Training, and Research Associates

\$173,900

In 1985 Education, Training, and Research Associates (ETR) conducted research on family life education curricula currently available for Hispanic students in the public schools. They found that although many Hispanic girls drop out of school due to pregnancy, schools have very few culturally relevant materials to help students make decisions about sexuality and pregnancy. With the assistance of a national advisory board, ETR is developing, testing, evaluating, and distributing comprehensive family life education materials for teachers and Hispanic students in multicultural classroom settings. The materials cover cultural pride, the family, self-esteem, and skills for change. Under this three-year grant, ETR is also training teachers to use the materials. Four curriculum units for teachers, four student workbooks, and a variety of materials for use at home by parents and students will be produced by ETR. The project is headed by Wilma Espinoza.

Council of State Governments

\$88,500

For the past two years the Southern Governors' Association (SGA), a part of the Council of State Governments, has concentrated considerable efforts on reducing maternal health problems and infant mortality through its Regional Task Force on Infant Mortality. A major factor in infant mortality is adolescent pregnancy, and the Task Force is now turning its attention more directly to that issue. The Task Force wishes to create greater awareness of the problem in the South and of promising programs and strategies to prevent it. Activities include a comparison of teenage pregnancy statistics by state and analyses of the costs incurred by teenage pregnancy; a compendium of legislative, administrative, and other initia-

tives to prevent adolescent pregnancy and their costs; a presentation on effective adolescent pregnancy programs; and dissemination of information to governors, legislators, and their staffs through publications and seminars. The SGA is also developing a plan for continued efforts in southern states to stimulate program initiatives, funding, and implementation of adolescent pregnancy prevention programs.

Discretionary Grants

<i>American Public Welfare Association</i> , toward planning a program of technical assistance to state governments on adolescent pregnancy policies and services	\$25,000
<i>Churchill School</i> , for development of a sexuality education curriculum for learning disabled adolescents	\$25,000
<i>Columbia University</i> , for dissemination of research findings on Hispanic adolescent childbearing	\$25,000
For dissemination of a report on programs and services to foster responsible sexual behavior on the part of adolescent boys	\$1,610*

Preventing childhood injuries

Harvard University **\$390,300**

Although childhood injuries, both accidental and intentional, are increasingly recognized as a leading public health problem, most state health agencies do not yet have sufficient experience and knowledge to create and implement effective programs to reduce the number of injuries. With this grant and funding from the Federal Division of Maternal and Child Health, the School of Public Health's Department of Maternal and Child Health at Harvard University established a national Childhood Injury Prevention Resource Center. It will be directed by Susan S. Gallagher and Bernard Guyer, both national experts in the field of childhood injury prevention. The Center's purpose is to share information and to provide practical and technical assistance to state and local maternal and child health agencies and to academic programs seeking to develop or expand childhood injury prevention programs, to complete the development and distribution of the Massachusetts Statewide Childhood Injury Prevention Program (SCIPP) training kits, and to support the documentation, publication, and dissemination of the SCIPP work and of other educational, research, and resource materials of interest to injury prevention professionals. The Center emphasizes long-term planning of comprehensive injury prevention programs and their integration into existing state and local programs. This grant contributes to the Center's operating costs for its first two years.

*Administered by officers of the Corporation.

Erikson Institute

\$310,000

Under a planning grant made by the Corporation in 1986, the Erikson Institute developed a training and credentialing program on child safety for professionals such as nurses, social workers, early child development specialists, and others who are concerned with child safety. The curriculum acquaints community child safety specialists with the resources that are available in injury prevention, teaches them how to build coalitions of support in their community and use the mass media, and helps them formulate a concrete plan of action for improving child safety in the community. During the first year of this two-year grant, the Institute is conducting a week-long seminar on injury prevention and offering it to approximately 20 participants selected from applicants around the country. In the second year, these participants will undertake activities in their own communities and will become part of a community-based network focused on reducing childhood injury that is centered at the Erikson Institute. Institute staff members will continue to provide training and other assistance to them throughout the year. All phases of the project are being documented and evaluated, and a resource book including the experience of these initial participants will be prepared. The project is directed by James Garbarino, president of the Erikson Institute.

Johns Hopkins University

\$300,000

Although childhood injuries have been primarily the concern of health professionals, the work of a range of professionals and policymakers does, in fact, affect the incidence of various types of childhood injury. Researchers at Johns Hopkins University's School of Public Health are preparing a book on both intentional and accidental childhood injuries intended for those who design and implement policies affecting children, including school administrators, day-care planners, engineers, architects, designers, and local public officials. Accidental injuries will be discussed according to the environments in which they occur: in vehicles and on roads, in the home, and in school and recreational facilities. Intentional injuries will be considered in another section, and a final chapter will discuss incentives and obstacles to the prevention of childhood injuries. The project director is Susan P. Baker, an epidemiologist specializing in childhood injuries. She is joined by Modena H. Wilson, M.D., a child development specialist, and Stephen P. Teret, a lawyer concerned with liability issues.

Research Foundation for Mental Hygiene

\$82,000

In February 1987 the Research Foundation for Mental Hygiene held an invitational conference on adolescent violence. A previous Corporation grant enabled a background paper to be prepared that summarized current understanding of the prevalence of violent juvenile offenses and the risk factors associated with delinquency in general and with chronic, serious, and violent behavior in particular. The paper included a review of promising approaches to reduce violent behavior. In addition, a selection of policy recommendations from previous conferences and reports was

compiled. The conference participants were divided into five working groups to consider the biological, psychological, cultural, structural, and interactional aspects of violence. Each group, which included researchers specializing in the area and policymakers or practitioners, discussed prevention, rehabilitation, treatment, and intervention programs. The final recommendations of the participants covered both specific types of offenses and general problems of aggression.

General

Carnegie Council on Adolescent Development

\$700,000*

A significant number of American adolescents drop out of school, commit criminal acts, become pregnant, abuse drugs or alcohol, become mentally ill, commit suicide, die, or become disabled from preventable causes. The goal of the Carnegie Council on Adolescent Development, which was established in 1986, is to generate public and private interest in measures that prevent damaging problems in adolescence and promote healthier adolescent development. Drawing broadly on the scientific, corporate, educational, medical, and youth-serving communities, the 27-member Council is undertaking four types of activities: synthesis of existing information; accumulation of new knowledge; stimulation of youth policies; and dissemination of research to the public and practitioners. The Council has established a Task Force on Education of Young Adolescents, chaired by David Hornbeck, superintendent of schools for Maryland. It has also begun to work with representatives of the media on adolescent problems and has initiated a study of promising preventive interventions and a synthesis of basic research on adolescence. David A. Hamburg, the Corporation's president, heads the Council, and Ruby Takanishi, a specialist in child development and social policy, is executive director. This appropriation is supporting the Council in its second year's work.

National Academy of Sciences

\$536,000

Despite the efforts of numerous public and private organizations, the problems of children and families in the United States have generally failed to capture the sustained attention of government and corporate leaders. This two-year grant is helping the National Academy of Sciences to establish the National Forum on the Future of Children and Their Families through the Academy's Institute of Medicine and the Committee on Child Development, Research, and Public Policy. The Forum is intended as a new institutional mechanism to bring scholars together with high-level federal, state, and municipal policymakers, corporate executives, labor leaders, and representatives of philanthropy and the media. Through seminars, conferences, and briefings, the Forum staff seeks to inform decision makers about scientific knowledge relevant to children's problems, identify policy issues that require additional research and analysis, and promote continuing discussion among scholars and individuals and groups who shape public opinion and public

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policy. The Forum's agenda, formulated by a steering group of child health and development scholars and selected high-level public- and private-sector leaders, includes such topics as the cost-effectiveness of child and family programs, the impact of changing demographics and family and occupational structures on child development, and the causes and consequences of the increased number of children growing up in poverty. This grant supports the Forum for two years.

Joint Center for Political Studies

\$500,000

While the poverty rate of married black families has fallen considerably over the last 25 years, that of female-headed black families is still over 50 percent, and the number of black families headed by women has nearly tripled since 1960. The Joint Center for Political Studies, a black-run policy analysis and research center established in 1970, is undertaking a comprehensive study of black families and children and making its findings available to a wide audience. The project has four parts: first, an analysis of U.S. Census data from 1960 to 1980 and more recent data to examine trends in family formation and their relationship to poverty and welfare; second, a study of black populations in 47 metropolitan areas to identify correlates between family formation and such factors as number of women in the work force, levels of black male unemployment and incarceration, and levels of governmental assistance; third, the dissemination of this information to federal and state policymakers, educators, social welfare administrators, civil rights organizations, labor leaders, researchers, and the media through a wide variety of publications and meetings; and fourth, the creation and maintenance of a computerized data base of statistics and information on the black family. This grant contributes to the project's operating costs for three years.

New York University

\$400,000

Adolescence is a time of significant transition and vulnerability to various kinds of destructive behavior, yet the scientific community does not yet understand why some adolescents develop these problems and others do not. To address this need, four co-investigators from New York University, the Bank Street College of Education, the University of Maryland, and Barnard College are undertaking a study of 960 low-income black, white, and Hispanic children in three urban centers. The researchers will study three age cohorts of children before and after major grade transitions, such as moving from an elementary school to a middle school. Data will be collected for three years. At the same time, 360 of the children and their parents will undergo intensive yearly interviews. The study will attempt to determine who develops adaptive and maladaptive behaviors, to explain the causal pathways to particular outcomes, and to examine why some high-risk youth meet the demands of subsequent development. They will also explore the role played by gender, race, and school transitions. The findings will be presented in a book to help educators, service providers, and community-based organizations design more effective prevention programs for at-risk adolescents.

Discretionary Grants

<i>Harvard University</i> , for a study of programs concerning behavior-related problems of school children	\$25,000
<i>Stanford University</i> , for planning a review of research on the biological, cognitive, and social aspects of adolescent development	\$25,000
<i>WGBH Educational Foundation</i> , for a symposium on children's television	\$25,000
<i>WGBH Educational Foundation</i> , toward audience research and promotion for a television series for early adolescents	\$25,000
<i>Yeshiva University</i> , for research on adolescent health at the Albert Einstein College of Medicine	\$25,000
<i>Yeshiva University</i> , for research on adolescent health at the Albert Einstein College of Medicine	\$25,000

STRENGTHENING HUMAN RESOURCES IN DEVELOPING COUNTRIES

The priorities of the program, *Strengthening Human Resources in Developing Countries*, are based on a view of development as a process of expanding indigenous human capacity to identify and solve social and economic problems and on the conviction that scientific research provides knowledge and technologies that can help societies achieve development that is sustainable—economically, environmentally, and socially. The current program focuses on selected countries in Africa that are now or were formerly part of the British overseas Commonwealth, on English-speaking nations of the Caribbean, and on Mexico.

The program takes a multidisciplinary approach to the analysis of development issues, drawing on the knowledge, skills, and resources of the behavioral, biological, medical, and social sciences as well as of the technical and policymaking communities in developing and developed countries.

A major objective is to encourage the application of science and technology for development through the support of projects to strengthen indigenous capabilities and by encouraging cooperation among policymakers and scientists in developing and developed countries.

A second major emphasis is on maternal and child health care, with an initial focus on reducing levels of maternal mortality and morbidity.

A third concern of the program is to communicate the lessons learned from development experience to American audiences—policymakers and scientists as well as the general public. Grants are aimed at strengthening the capacity of private voluntary organizations active in developing countries to enhance U.S. public understanding of those countries and of the long-term development problems they face. Other grants support journalism projects and radio and television programming for the same purpose. A portion of the funds for public education in the future will be used to examine and foster improved science and health reporting in sub-Saharan Africa, the Caribbean, and Mexico.

A special subprogram of activities focusing on South Africa stresses projects that attempt to enhance the legal, educational, and health status of black South Africans and provides continued support for the Second Carnegie Inquiry into Poverty and Development in Southern Africa.

Columbia University**\$996,900**

It is well known that the poor health of pregnant women in developing countries is largely a reflection of women's low social and legal status in many localities. The level of women's education, an indicator of "emancipation," correlates strongly with their reproductive health. This three-year grant to Columbia University's Center for Population and Family Health, which has worked extensively with African institutions and researchers, is laying the basis for more effective, coordinated research and action to improve women's chances of surviving childbearing in good health. The Center is preparing an annotated bibliography of research and knowledge on maternal health and on the social antecedents of maternal health problems. The aim is to develop a "state of the art" understanding of the subject, identify significant research and knowledge gaps, and facilitate the selection of priorities for action-oriented research and demonstration projects. Information will be collected on innovative research methods for rapid epidemiological assessment, which will be available on computer discs to a network of collaborators. The Center will also identify ways in which donors can strengthen capabilities in selected African institutions. A "chartbook" is planned, along with other informational literature, to be used for briefing decision makers, women's organizations, and other agencies interested in educating policymakers and health professionals about the problems of maternal mortality. This work is being coordinated with that of the World Health Organization (See page 52).

Fundación Mexicana para la Salud**\$575,000**

In the less industrialized nations, financing of research in science and technology depends mainly on government support, supplemented by grants and contracts from bilateral and multilateral donors and foreign private foundations. Developing countries need to evolve mechanisms for mobilizing private support for scientific pursuits if they are to achieve more self-reliance. The Fundación Mexicana para la Salud, or Mexican Health Foundation, was founded in 1985 to mobilize private funding for health research and efforts to strengthen human resource development through the application of appropriate technology. With an independent governing council whose members are drawn from a broad range of disciplines, the Foundation now receives broad multi-sectoral support. The Foundation has identified the need for highly trained Mexican scientists in biomedical, social, and other health-related fields to provide leadership in priority areas for health research in Mexico. This grant, to be used over three years, is supporting, among other activities, specific research projects, particularly in maternal and child health, and training in the hope of attracting and repatriating talented Mexican scientists for work in their home country. It is also supporting exchanges of staff between Mexican and American institutions. The research results will be disseminated in the United States and other developing Commonwealth countries.

Many studies have shown that the educational level of parents, particularly of mothers, can significantly enhance child survival and development. Educational attainment also improves a woman's capacity and motivation to protect her own health during pregnancy and in general. The vital role of female education in the health of families suggests that communities with high adult female illiteracy rates risk producing a younger generation with severe health problems. The World Health Organization (WHO) works closely with governments in developing countries to devise strategies for improving the health status of their populations. With Corporation support over the next three years, WHO is working with relevant ministries and national institutions in Kenya, Nigeria, Ghana, and Zimbabwe to implement projects that incorporate health messages into functional literacy programs at the village level and to assess the impact. Inter-sectoral teams will conduct baseline studies of the literacy levels and health status of the relevant populations, then involve community institutions, departments of agriculture and education, and other groups in constructing a plan of attack. Local institutions will design teaching materials and an evaluation scheme. It is hoped that by the end of the first three years there will be significant improvement in women's self-care and the care of children as well as improved female literacy. Attempts will be made to ensure that these changes are sustained.

World Health Organization**\$230,000**

According to the World Health Organization (WHO), some 500,000 women die each year from pregnancy and related causes. In some countries, the complications of pregnancy and abortion are the most common cause of death in women of child bearing age. In early 1987, with financial and technical assistance from the Corporation, WHO joined the United Nations Family Planning Agency and the World Bank in sponsoring an international conference on "Safe Motherhood" in Nairobi, Kenya. One outcome of this important conference was agreement by WHO to implement and coordinate a program in developing countries designed to reduce morbidity and mortality associated with pregnancy and childbearing. The aim is to learn the dimensions of the problem worldwide, establish research needs, define the essential elements of good obstetric care and of the management and evaluation of maternal health-care programs, and develop curricula for training personnel. At the launching of this initiative, the World Bank and the United Nations Development Program each pledged \$1,000,000 toward a special fund to help WHO increase awareness among leaders in the health professions, health workers, program managers, decision makers, women, and the general public of the options for constructive action and to improve the knowledge and skills for protecting women's health in the home and in primary care facilities. This one-year grant is supporting WHO's communications activities in the English-speaking Caribbean and sub-Saharan Africa.

Africare

\$190,900

Programs designed to improve the health of pregnant women and children in Africa often show promise of success but then falter when external aid agencies withdraw their support on the assumption that governments will pick up the costs. The need now is to explore new approaches to development that rely on resources and skills that can be generated locally. This project, located in Imo State, Nigeria, is involving the federal and state ministries of health, the local university, and local women's organizations in the planning and conduct of a community-based project aimed at teaching mothers to improve their own and their children's nutrition and health care. A project team of Africare, a U.S.-based voluntary organization that has earned respect in Nigeria for its wide experience in implementing health and development projects on the continent, is training 80 members of Nigerian women's associations to function as community-based health-care teachers. The project team is also training secondary school teachers to communicate health lessons to adolescent girls still in school. The project received an initial grant from the U.S. Agency for International Development. Corporation funds, supporting staff training for 30 months, are enabling the project to benefit from added emphasis on the care of pregnant women.

Harvard University

\$86,200

Since 1960, when the Corporation-sponsored Ashby Commission's report, *Investment in Education*, proposed a plan for the development of higher education in Nigeria, the universities in that country have increased in number from one to more than twenty. Educational policy has similarly expanded since the Commission's report. From a nationwide collegiate program dedicated to the training of a few carefully selected candidates for high-level positions in industry, commerce, and government, the universities of Nigeria have taken on a more classical liberal arts orientation, which emphasizes a broader education for larger numbers of people. The Corporation's two-year grant is enabling Ajuji Ahmed, a lecturer in the Department of Education at the University of Maiduguri, Nigeria, to spend two years at Harvard University producing a study of the development and future of Nigerian higher education, under the supervision of Francis Keppel, professor of education at Harvard and an original member of the Ashby Commission.

Discretionary Grants

<i>American College of Obstetricians and Gynecologists</i> , for an exploratory meeting on the training of African obstetricians	\$23,000
<i>American Red Cross</i> , toward a project to improve blood transfusion services in Uganda	\$25,000

<i>Appropriate Health Resources and Technologies Action Group</i> , toward publication and distribution of an issue of a newsletter for health personnel on the role of women in controlling diarrheal diseases among children in developing countries	\$25,000
<i>Association of Commonwealth Universities</i> , toward participation by African and Caribbean representatives in the 14th Commonwealth Universities Congress	\$25,000
<i>Bryn Mawr College</i> , toward a program of graduate training in anthropology for Kenyan students	\$25,000
<i>Family Care International</i> , toward participation by representatives of Commonwealth African countries in a conference on means of reducing health risks of childbearing	\$25,000
<i>Inter-American Parliamentary Group on Population and Development</i> , for a program in the Caribbean to increase awareness of the problems of adolescent pregnancy	\$23,250
<i>Mount Holyoke College</i> , toward planning for an international conference on education for women	\$25,000
<i>United World Colleges</i> , toward expenses of participants in a meeting on Third World development	\$25,000
<i>Zimbabwe, University of</i> , toward a conference on the role of higher education in African development	\$25,000

Research and education on Third World development

WGBH Educational Foundation **\$180,000**

WGBH-TV, the public station in Boston, is planning a 13-unit interdisciplinary "telecourse" and television series on Latin America and the Caribbean in association with Columbia, Florida International, and Tufts universities. Entitled *The Other Americas*, the series will offer a new introduction to the contemporary history of a vast region with a multiplicity of nations, ethnic groups, cultures, religions, languages, economic policies, and systems of government. The course will bring together the analytic tools of a range of disciplines, focusing on the dynamics that have shaped the region's past and the processes that are shaping its future. It will feature ten one-hour prime-time television programs for distribution over the Public Broadcasting Service as well as teaching and other print materials for use by college students and the general public. Development of the telecourse, which has received Corporation funds over the past two years, has now attracted production financing from the Annenberg/Corporation for Public Broadcasting Project and from the John D. and Catherine T. MacArthur and Rockefeller foundations. This grant is providing additional development funding over 18 months as WGBH seeks to meet budget needs totaling \$6.5 million. The series is slated for broadcast in 1992.

National Council of Returned Peace Corps Volunteers

\$98,000

Former Peace Corps volunteers, with their motto, "Bringing the World Back Home," are a potential resource of great value in educating Americans about development issues. This grant is helping the Council to assist returned volunteers who want to work with private voluntary organizations or on their own in improving American understanding of development and developing countries. Corporation funds are paying the salary of a new development education project director and other administrative costs and providing seed money for local development education projects initiated by affiliated regional returned volunteer groups. A national meeting of representatives from 66 affiliated groups will be held to share the experiences of these projects, resulting in a series of "how-to" brochures to further project development and a newsletter encouraging adoption of successful models.

Overseas Development Network

\$85,500

The Overseas Development Network is an association of student groups on 45 university, college, and high school campuses around the United States. Members include foreign students from the developing world, former Peace Corps volunteers, and faculty members whose research interests have taken them to developing countries and who want a better understanding of the development process and ways to promote it. Network chapters on individual campuses organize university-wide conferences on development issues and collaborate with other chapters on research projects. The national headquarters staff provides assistance to chapters in these activities in addition to arranging student internships in nongovernmental organizations overseas and in rural development projects in the United States. This one-year grant will help the Network assist the development of local chapters by defraying the costs of salaries for two regional coordinators and of underwriting the production of handbooks on chapter organizing and other issues.

InterAction: American Council for Voluntary International Action

\$60,000

For more than two years the Corporation has sought ways to help U.S. private voluntary organizations that are engaged in international development educate the American public about basic human resource issues in less industrialized countries, particularly in sub-Saharan Africa and the Caribbean. InterAction is an umbrella organization of private voluntary agencies. A previous Corporation grant enabled InterAction and the Overseas Development Council to collaborate in conducting a major survey of U.S. public knowledge and opinion about international development issues and foreign assistance. The first such national study conducted since 1973, its aim was to establish the information needs of Americans as a basis for devising effective public education programs. The report was published in early 1987, showing a disturbing lack of understanding of the cultures and economies of the developing nations and of the U.S. relationship to them. This grant paid for

further analysis and dissemination of the report to development educators, teachers, and students of foreign policy as well as to members of media organizations and policymakers. Part of the grant is being used to support three regional seminars on the report's findings.

University of Southern California **\$50,000**

This grant renews Corporation support of the University of Southern California's journalism fellowship program at the Center for International Journalism. The grant is underwriting the tuition, fees, books, and living stipends during the academic year 1987-88, of two fellows from Mexico, who are participating in a master's degree program in international journalism that also involves further study at El Colegio de Mexico. Courses, seminars, and other activities focus on policies on both sides of the border that impinge upon the quality of urban life, the environment, education, the regional economy, and U.S.-Mexican relations. The journalists will be meeting with their American counterparts and writing for American publications while in the United States. The fellowship program is also supported by the Ford, John D. and Catherine T. MacArthur, and John M. Olin foundations.

Discretionary Grants

<i>Childhope Foundation</i> , toward a study of community-based educational programs for street children	\$10,000
<i>Coordination in Development</i> , for a comparative evaluation of three international development education programs	\$25,000
<i>Development Group for Alternative Policies</i> , toward a symposium on U.S. development assistance policy in the eastern Caribbean	\$21,900
<i>Global Perspectives in Education</i> , toward a workshop on international development education	\$25,000
<i>Harvard University</i> , toward a visiting professorship in health research for developing countries at the School of Public Health	\$25,000
<i>Independent Broadcasting Associates</i> , toward production of a radio series and accompanying educational materials on hunger, poverty, and development	\$25,000
<i>National Academy of Sciences</i> , toward a symposium on the role of science and technology in development	\$25,000
<i>Overseas Development Institute</i> , toward an international symposium on the role of nongovernmental organizations in the development assistance process	\$25,000
<i>Pan American Health Organization</i> , for planning a program to improve the health of mothers and children along the U.S.-Mexican border	\$24,500

<i>Panos Institute</i> , toward support of a program of public education in the United States about the relationship between development and the environment	\$25,000
<i>The Press and the Public Project</i> , toward publicity for a public television documentary on American media coverage of Africa	\$18,500
<i>United States Committee for UNICEF</i> , toward public education in the United States on child health and survival in developing countries	\$21,450

South Africa

Institute of International Education	\$200,000
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A planning grant in 1987 enabled the Institute of International Education (IIE) to work with the Educational Opportunities Council (EOC) in South Africa to formulate a career development fellowship program for black South African community leaders that would encompass one year of nondegree study and related practical experience in the United States. IIE is using this two-year grant to meet the international travel costs of some 25 fellows each year who typically work for churches, trade unions, nonformal education schemes, professional associations, agencies providing support services to grassroots programs, and other groups with deep roots in the South African black community. The EOC is recruiting and selecting candidates in South Africa with help from an IIE representative familiar with U.S. colleges and academic standards. The candidates, who are being placed in universities and junior and community colleges, undertake nondegree study with a faculty mentor in combination with practical training at agencies involved in social work, union financial management, labor relations, teacher education, nutrition, or other relevant fields. The colleges are providing tuition waivers, mentors, domestic travel costs, and in most cases room, board, and other living expenses. Additional funds are being provided by the Ford Foundation.

Institute of International Education	\$100,000
	\$150,000

The Institute of International Education (IIE), which administers fellowship programs for study in the United States by black South Africans, established the Information Exchange in 1987. The Exchange acts as a clearinghouse of information about educational programs in South Africa and in the U.S. of benefit to black South Africans. It was established in part to help assure that resources from American universities, corporations, foundations, churches, and community organizations are effectively mobilized and coordinated and to see that educational opportunities are wisely matched with South African needs. Among its features is a computerized data base listing American institutions offering scholarships and other assistance to South African educational institutions and individuals and providing information for South Africans on U.S. sources of financial and technical

assistance. The Exchange also produces reports and a newsletter offering up-to-date information on institutions supporting South African education. The Corporation and the Ford Foundation joined in supporting the planning and development of the Exchange. The follow-up grant will help increase the Exchange's effectiveness during the next two years, both within South Africa and outside.

Wilgespruit Fellowship Centre

\$105,000

Wilgespruit Fellowship Centre is an ecumenical retreat and training center near Soweto, the largest black township in South Africa. Established in 1948 as a center for the discussion of problems of racism, it has since expanded its activities to include research on social and economic issues and training for secular and religious community development organizations throughout the country. Weekend and week-long courses are given in such areas as income generation, rural development, civil rights, and credit provision. In response to the expressed need for longer, more comprehensive courses, the Centre has developed a six-month residential training program in community development and organizational management. Called the Ubuntu Social Development Institute, it offers practical training to about 70 participants a year in accounting, personnel management, and financial planning. This three-year grant is defraying the salary and related costs for the Institute's director of education and research, the tuition of three trainees, and other administrative costs. The U.S. Agency for International Development and the Ford Foundation, together with European church-based donors, are major contributors to the Institute.

Phelps-Stokes Fund

\$100,000

According to the United Nations High Commissioner for Refugees, there are approximately 250,000 documented refugees in southern Africa; the actual number is estimated to be much higher. More than half of these refugees are students between the ages of 18 and 24 who have not completed their education. Unfortunately, U.S. government scholarships to refugees for study in southern African countries or in the United States are being cut back just as the demand for them is rising. In late 1985, Archbishop Desmond Tutu established the Southern African Refugee Scholarship Fund in his name with part of the money from his Nobel Peace Prize. Organized and administered by the Phelps-Stokes Fund, the program is helping refugee students from South Africa continue their education in the United States. The program secures tuition waivers from American colleges and universities and oversees the selection and placement of candidates from refugee centers in southern African countries. This two-year grant is being applied toward the administrative budget of the scholarship fund. The students' expenses are being defrayed by corporations, universities, and individual contributions. The first students began their studies in January 1986. Thus far, more than 35 students have received scholarships for study in the U.S.

University of Cape Town

\$72,000

South Africa: The Cordoned Heart, a book and exhibition of photographs that emerged from the Second Carnegie Inquiry into Poverty and Development in Southern Africa, dramatized the power of documentary photography to record black South Africa's struggle for legal and political equality. Omar Badsha, who was editor of the photographic project, is now working under a Corporation grant to establish a new Centre for Documentary Photography at the University of Cape Town. Besides functioning as an archive for prints, the Centre is encouraging black photographers to improve their skills by conducting workshops on photographic techniques, organizing the preparation of publications, and providing display space. This grant is providing salary support for Badsha over three years and helping pay for storage, equipment, and archive collection. The University is making available the office, darkroom, and storage facilities.

Alexandra Health Centre and University Clinic

\$65,000

The Alexandra Health Centre, in addition to providing primary health-care services in the black township of Alexandra, offers clinical training in primary health care to third- and fifth-year medical students from the medical school of the University of Witwatersrand. Under the direction of Timothy D. Wilson, a pediatrician, the Centre is reassessing its services in light of present and future health needs in South Africa's growing urban slums. Improved prenatal, maternity, and postpartum services are being developed. This grant is helping to defray the costs of research underlying these efforts, including associated staff salaries for one year. Baseline studies of the surrounding patient population will be conducted and analyzed. Discussions are being held with patients to determine what mothers would like the Centre to do better and what the nurses and midwives think they need in order to respond. Based on the results, the clinic staff will design services in the renovated delivery unit and an in-service training course for midwives and breast-feeding "motivators." At the end of the second and third years of the program, both the services and the training will be evaluated.

Discretionary Grants

<i>African Research and Communications</i> , toward research and public education on South African history, culture, and educational policy	\$25,000
<i>Cape Town, University of</i> , for research on programs promoting healthy adolescent development	\$6,000
<i>Duke University</i> , toward a study of economic sanctions as a component of foreign policy	\$24,450
<i>Educational Opportunities Council</i> , toward support	\$25,000

<i>Harvard University</i> , for a visiting scholar in poverty and development in southern Africa at the Center for Health and Human Resources Policy	\$25,000
<i>Institute of International Education</i> , for planning a career development fellowship program for nondegree study by black South Africans at U.S. universities	\$25,000
<i>InterAction: American Council for Voluntary International Action</i> , toward meetings and publications on nongovernmental development and relief programs in southern Africa	\$25,000
<i>Lawyers' Committee for Civil Rights Under Law</i> , toward a meeting on children in detention in South Africa	\$25,000
<i>Phelps-Stokes Fund</i> , for a meeting of South African refugee students	\$24,200
<i>South African Association for Academic Development</i> , for an American consultant on academic remediation in South African universities	\$4,500
<i>Worldwide Documentaries</i> , toward production and distribution of a film on a South African church leader	\$25,000

AVOIDING NUCLEAR WAR

The objectives of the Avoiding Nuclear War program are to refine and expand the intellectual framework for assessing the risks of nuclear war and the prospects for reducing them; to establish mechanisms to foster sustained interdisciplinary work in the area of avoiding nuclear war; and to initiate a continuing interaction between researchers and the policymaking community.

The program emphasizes independent, science-based scholarship to develop new information and ideas and also supports selected projects communicating the results of scholarly work to the American public.

The first phase of the Corporation's grant program has entailed a limited number of relatively large grants to universities and other institutions with a strong multidisciplinary approach to the study of international security, arms control, the Soviet Union, and U.S.-Soviet relations. The *Carnegie Quarterly* spring 1985 issue describes some of these multidisciplinary programs in greater depth. The Corporation does not anticipate making many more grants for additional programs of this kind. It will, however, continue to support research and analysis of selected problems with particular bearing on the avoidance of nuclear war, which, because of their complexity or technical difficulty, require attention by the most competent experts independent of government.

In its second phase, the program is also supporting projects to educate the public in the United States and abroad on issues relating to the avoidance of nuclear war—primarily those issues emerging from the analytical studies mentioned above.

The program does not support school or college curricula or projects.

Institutional grants for research and dissemination

Stanford University

\$1,350,000

A major early goal of the program, Avoiding Nuclear War, has been to strengthen university programs concerned with arms control and security issues so that scholars might contribute independent analysis, timely commentary, and new ideas and approaches to the forging of more effective national policies. Through two Corporation grants, scholarly research at Stanford University's Center for International Security and Arms Control has played a significant role in advancing understanding and informing policy on technically difficult issues. The current three-year grant will permit this work to continue and allow the Center to increase its attention to the arms negotiation process. The program addressing the latter, entitled "The Future of U.S.-Soviet Strategic Relations," is being planned by Sidney D. Drell, co-director of the Center, Coit D. Blacker, a political scientist specializing in Soviet military policy, and Thomas H. Johnson, a Center member and physicist who teaches at the U.S. Military Academy. David Holloway, a political scientist and an expert in Soviet military affairs, will be a key contributor to the research. The study

will focus on the non-treaty approaches that might help regulate the U.S.-Soviet military rivalry and will investigate ways to foster strategic stability if strategic defense systems are developed and deployed by both sides. Under the direction of Ambassador James Goodby, former head of the U.S. delegation to the Conference on Confidence- and Security-Building Measures and Disarmament in Europe, Center scholars will study European security issues. The grant will also support an assessment of U.S. and Soviet procedures for screening nuclear weapons personnel and allow continuation of the Science Fellows Program, which has thus far brought eight scientists to the Center.

University of Michigan

\$320,000

In 1982 the president of the University of Michigan established the Office of International Peace and Security Research to survey and organize the University's relevant resources. Under the direction of William Zimmerman, a Soviet specialist, and Harold K. Jacobson, a political scientist, the Office explored existing faculty projects and initiated a faculty-wide seminar on arms control. They discovered 11 faculty groups within the social sciences working on problems of the origins of conflict and peaceful attempts at resolution. The University has now developed a Program for International Peace and Security Studies within the Center for Political Studies, which is continuing the arms control seminar and organizing another seminar concerned more broadly with the question of conflict. Seven of the faculty groups deal explicitly with international conflicts. They are studying détente; economic issues in national defense; historical case studies of the correlates of war; the willingness of nations to risk conflict in order to protect national interests; and area studies of China, Japan, and the Soviet Union and Eastern Europe. The four other groups are considering conflict in other spheres through studies of evolution and human behavior, conflict management alternatives, organization theory, and dispute resolution. Each of the groups, which meet together four to eight times a year, is writing a paper on its approach and conclusions. These papers will be compiled in a single volume on interdisciplinary approaches to the study of conflict and cooperation.

Research and dissemination on topics of special interest

The RAND Corporation

\$1,000,000

In 1985 the Corporation made a two-year grant to The RAND Corporation for a study of crisis development between the United States and the Soviet Union. In the first stage of this project, building-block studies were made of Soviet and American styles of crisis behavior and perspectives on nuclear weapons and their use. In the second phase of the project, supported by the current two-year grant, particular attention will be paid to how crises can be ended or de-escalated or whether this is possible once nuclear weapons have been used. An analysis is being done on the effect of arms control agreements (or failures in the arms control process) on the ability of the U.S. and U.S.S.R. to manage crises. Another set of

studies is considering how domestic factors affect the two sides' approaches to conflict management. Several publications are expected to result. One study is analyzing the differences in U.S. and Soviet styles and capacities that affect the possibilities of avoiding war and managing crises. Another is considering the political and military trade-offs the U.S. and U.S.S.R. might face in a crisis situation and offering ways to mitigate the effects of these trade-offs. A third study is considering processes of de-escalation and war termination. The project's findings will be integrated into a book intended for a broad audience of professional analysts, members of the policy and intelligence communities, the media, and the interested public. The project is directed by Arnold L. Horelick, a prominent specialist on the Soviet Union and former U.S. National Intelligence Officer for the Soviet Union.

National Academy of Sciences

\$421,000

The Committee on the Contributions of the Behavioral and Social Sciences to the Prevention of Nuclear War was established by the National Academy of Sciences in 1985 to advance research of value in reducing the risk of nuclear war. The Committee encourages interest and participation of scholars and scientists in these fields; communicates the results of research to the policymaking community and the public; serves as a liaison between researchers and potential users of their work; and initiates working relations between U.S. and Soviet counterparts. The Committee has held research workshops, seminars, press briefings, and other activities to communicate its findings to scholars, scientists, and policymakers. It plans to issue a series of scholarly volumes assessing the contributions of the behavioral and social sciences to improved understanding of defense and foreign policy issues and a volume of essays resulting from a workshop on deterrence. The workshop brought experts in security studies, international relations, and history together with scientists in the behavioral and social sciences to examine theories and historical studies of threat and response and to compare and contrast nuclear deterrence and superpower competition with situations like trade wars, competitions, and insurgencies. This grant supports the work of the Committee for two years.

Natural Resources Defense Council

\$250,000

In 1986 the Corporation contributed to an unusual collaboration between Soviet and American scientists to improve verification of compliance with agreements to ban nuclear weapons tests. Sponsored by the Natural Resources Defense Council and the Soviet Academy of Sciences, the project's aim was to place a team of American seismologists and equipment, along with Soviet colleagues, at sites near the Soviet underground nuclear test facility in Kazakhstan and a comparable group of Soviet scientists with American colleagues in the U.S. By the end of August 1986, seismological equipment was permitted to be sent to the Soviet Union, and a team of volunteer American physicists were working at the sites. A Soviet team was permitted to visit the U.S. briefly in November to agree on U.S. sites. In

February temporary stations were set up at Troy Canyon and Nelson, Nevada, and Deep Springs, California, using the same type of equipment installed last year in the U.S.S.R. The U.S. government has also granted permission for more advanced and sensitive equipment to be sent to the Soviet Union. Although the Soviet government has not permitted monitoring during test explosions, the baseline data gathered, previously unavailable in the West, have provided essential information that allows American seismologists to make improved estimates of the size of past and future Soviet nuclear explosions. The current one-year grant renews Corporation support for the project.

Stanford University

\$250,000

Alexander L. George, Graham H. Stuart Professor of International Relations at Stanford University, has to a significant degree shaped the contemporary view of how nations seek to influence one another, through both his theoretical writing and case studies and his long career educating many of today's specialists in international relations. The Corporation has previously supported his work as part of a larger grant to Stanford University's Center for International Security and Arms Control. The current grant is allowing George to work on three studies before he retires in 1990. The first, tentatively titled *Crisis Management in U.S.-Soviet Relations*, is a collaborative study of the management of international crises. Approximately 15 scholars are analyzing nine or ten historical crises and contributing articles on particular aspects of crisis management. George's second project is a substantial enlargement of a small volume of case histories and analyses entitled *Limits of Coercive Diplomacy* that he edited with David K. Hall and William E. Simmons in 1971. The third describes George's method of "structured, focused comparison" and includes analytical critiques of other case study approaches.

Princeton University

\$200,000

The proposals for significant reductions in strategic nuclear forces made at the Reagan-Gorbachev summit meeting in Reykjavik and the cuts in intermediate- and short-range nuclear missiles agreed to in Washington in December 1987 call for a careful analysis of the impact of these measures on Western security. Almost three years ago a group of scholars at Princeton University began to assess the possibility of a more limited role for nuclear weapons and consider how to design a defense and security policy based on it. Under the joint auspices of the Center for Energy and Environmental Studies and the Center of International Studies, Frank von Hippel, a physicist specializing in nuclear weapons and energy policy, Harold A. Feiveson, a political scientist, and their colleagues are working on a security policy based on the concept of "finite deterrence." Under conditions of finite deterrence, a nation retains just enough nuclear weaponry to ensure that its response to a nuclear attack can be sufficiently damaging to discourage nuclear use in the first place. Studies thus far have analyzed the size of both the U.S. and Soviet forces

that would constitute sufficiency. Under this two-year grant, the scholars are studying techniques for verifying the removal and destruction of weapons, determining how to account for non-American nuclear forces in a treaty with the Soviet Union, and examining what effect reduced reliance on nuclear weapons may have on the danger of conventional war in Europe. The project is also investigating how to safeguard against the production and use of nuclear weapons by third countries or organizations.

American Committee on U.S.-Soviet Relations

\$150,000

The American Committee on U.S.-Soviet Relations is a nonpartisan group of approximately 400 individuals who have played key roles in U.S.-Soviet relations in government, the private sector, or other capacities. Created during the 1970s to permit improvement in East-West relations, it is now providing periodic assessments of the superpower relationship and considering relations in light of Mikhail Gorbachev's policy of "new thinking." The Committee is first gathering information in broad areas of political, military, economic, cultural, and scientific-technological affairs from the widest possible spectrum of sources, including American and Soviet government documents and reports and analyses from American and foreign universities and research institutions. Through meetings, conferences, and interviews, the Committee will solicit the information and views of governmental figures, correspondents, businessmen, and students who have lived in the Soviet Union, and other people who have firsthand knowledge of the political, economic, and cultural life of that country. The Committee's assessments, data, and bibliography will be published annually and made available to the Congress, the executive branch, the media, universities, and organizations interested in U.S.-Soviet relations. The project is directed by William Green Miller, president of the Committee and a former foreign service officer and intelligence specialist, and staffed by young scholars studying the Soviet Union.

Council on Foreign Relations

\$150,000

The Council on Foreign Relations is embarking on a two- to three-year study of East-West relations in the 1990s, taking as its point of departure the new circumstances in the Soviet Union under Mikhail Gorbachev and the policy concerns that are likely to come with a new administration in Washington. Two very broad questions are the basis of the study: Given the recent changes in the U.S.S.R., what changes in East-West relations are likely? What new opportunities will appear for constructively managing these relations? The project will draw on the Council's special strengths — its location, experience, membership, standing in the foreign policy community, and its capacity to bring together prominent and influential leaders in government, business, and academia — in study groups that are being convened to address particular aspects of the future of East-West relations. Topics to be considered include arms control, the evolving role of the U.S.S.R. in the

international economy, and regional issues in Europe and Asia. Several books and articles are expected to result from these study groups. Michael E. Mandelbaum, a political scientist and senior fellow in the Project on East-West Relations at the Council, is directing the project.

Woodrow Wilson International Center for Scholars

\$150,000

Formulation of an informed and realistic policy toward the Soviet Union requires that the U.S. leadership understand the political and social situation in the U.S.S.R., particularly during periods of leadership transition. James H. Billington, formerly director of the Woodrow Wilson International Center for Scholars and currently Librarian of Congress, is undertaking a major study of the new generation of Soviet leaders. He is focusing on Russian nationalism and its relationship to Soviet policy decisions, particularly toward the West. His aim is to define a range of realistic possibilities for overall future development, both domestically and internationally. Billington is considering the objective political, economic, and strategic situation in the Soviet Union as well as the more subjective phenomena of Russian nationalism. His study includes areas usually not integrated into analyses of the Soviet government, such as the nature and importance of revived interest in the Orthodox church, the emergence of the genre of "village writers," the debate in the U.S.S.R. over the lessons of Russian history, the evolving definition of Russian interests, and the Soviet image of the outside world. His research is supplemented by meetings with representatives of the scholarly, governmental, and public policy communities.

Center for Advanced Study in the Behavioral Sciences

\$100,000

Organization theory is an area of behavioral sciences that has not yet been applied extensively to the problem of avoiding nuclear war. It is clear, however, that national decisions to go to war or to resolve differences peacefully are made by individuals who are acting in one or another organizational capacity and whose behavior must be understood at least partially in terms of organizational constraints and incentives. Past conflict research has tended to use the individual as the model, disregarding the behavior of organizations that might be relevant to the attainment of international peace. Robert L. Kahn, professor of psychology at the University of Michigan, is spending a year working on organizational issues with Mayer N. Zald, chairman of the University of Michigan's Department of Sociology, and Robert I. Sutton, assistant professor of industrial engineering and engineering management at Stanford University's School of Engineering. Working near the Center for Advanced Study in the Behavioral Sciences on the Stanford campus, they are including other Bay Area specialists in arms and security fields in their seminars.

Defense Forecasts

\$100,000

Throughout the nuclear age, the public debate and presidential pronouncements on nuclear doctrine in the United States have not corresponded with the actual development and deployment of nuclear weapons. Although there have been studies of public nuclear policy and analyses of the development of military doctrine and deployment, there has been no study of the ways these two domains have interacted — or failed to interact. Barry M. Blechman, president of Defense Forecasts and a distinguished defense policy analyst with experience in several branches of government, and Janne E. Nolan, a Council on Foreign Relations fellow and guest scholar at The Brookings Institution, are writing a book on this subject. They are first reviewing U.S. public nuclear doctrine, examining how presidents have been affected by perceptions of campaign expediency and, once in office, by public opinion and pressure from various branches of the government. They are then considering the history of nuclear policy and weaponry development in the military, paying particular attention to the interplay between assessments of Soviet intentions and weapons development and the organizational, industrial, and service politics that have propelled arms development. Finally, Blechman and Nolan are analyzing the factors that must be taken into account in order to formulate U.S. nuclear policy.

Georgetown University

\$100,000

Education in the fields of science and technology has consistently been a high priority in the U.S.S.R., but under the leadership of Mikhail Gorbachev, the “technostructure” — cadres of scientists, engineers, and technicians — has had new demands placed on it in the national campaign for economic “reconstruction.” Although this is clearly a national priority in the U.S.S.R., Soviet scientific and technical education and personnel have not been extensively studied in the United States. This three-year effort at Georgetown University, supported by the National Science Foundation and the Corporation, is intended to fill this gap. The principal investigators, Harley D. Balzer, director, Russian Area Studies Program, and Murray Feshbach, research professor of demography, both of Georgetown University, are examining the Soviet educational system and the personnel it produces and assessing the capabilities of the Soviet technostructure for advancing science and technology in the future. They are putting Soviet practice in comparative perspective and making qualitative and quantitative assessments of Soviet training and employment of scientists, engineers, and technicians. Professors Balzer and Feshbach are planning to write a book covering all aspects of their study.

Irving Janis

\$91,550

Cornell University

\$91,000

Since 1985 the Corporation has been supporting the work of Irving L. Janis, a social psychologist, and Richard Ned Lebow, a political scientist, in their research and writing concerned with how the United States manages international crises and

how the decisions and decision-making process can be improved. Several books are to result from these grants. Irving Janis has already completed one manuscript, which presents a theoretical analysis of how and why avoidable errors are made in the management of international crises. It develops a new conceptual framework for understanding the processes of strategic organizational decision making under stress. This work draws heavily on Janis' study of international crises faced by the U.S. since World War II, described in a second volume. One book in this group, *Nuclear Crisis Management: A Dangerous Illusion*, by Lebow, was published in January by Cornell University Press. It explores the reasons why a future superpower crisis of the magnitude of the Cuban missile crisis would be much more difficult to manage. A companion study, *Threat and Illusion: Rethinking Soviet-American Rivalry*, currently being written by Lebow, is a critical treatment of the assumptions that have guided post-war American security policy. In addition, Janis and Lebow are collaborating on a book on crisis prevention and management that will diagnose conceptual and procedural barriers to quality decision making and offer practical suggestions to government officials for avoiding and, if necessary, managing crises.

Nuclear Control Institute

\$80,000

A special concern of the program, Avoiding Nuclear War, has been the spread of nuclear weapons and the capacity of non-nuclear countries and terrorist groups to produce or obtain them. With Corporation support, the Nuclear Control Institute (NCI) two years ago convened the International Task Force on Prevention of Nuclear Terrorism to assess the risk of nuclear terrorism and make recommendations for its prevention. The findings and recommendations of the Task Force and additional background papers were published in a volume entitled *Preventing Nuclear Terrorism*. The current Corporation grant is supporting an outreach program to increase public attention both here and abroad to the management and control of nuclear weapons and their materials, with particular emphasis on communicating the Task Force's key recommendations to Congress and relevant federal agencies. NCI is commissioning several papers addressing specific recommendations; holding briefings for members of Congress; organizing symposia in collaboration with Western European institutions on recommendations pertinent to Europe; and conducting meetings with government and industry leaders in Japan, which is heavily reliant on nuclear power. The NCI is also holding a series of meetings with representatives of nations that have not signed the Nonproliferation Treaty and that are suspected of having developed or seeking to develop nuclear weapons. NCI hopes to publish in one volume the commissioned papers, reports, and minutes of meetings produced during this outreach program, which is headed by Paul L. Leventhal, president of NCI.

Stansfield Turner

\$75,000

The growing number and sophistication of terrorist incidents, state support—perhaps even sponsorship—of terrorist groups, and nuclear proliferation all make

it more likely that terrorists may cause a nuclear confrontation by threatening or using nuclear weapons, or provoking another government to do so. More immediately, conventional terrorism threatens to undermine international stability, damage trust among nations, and provoke aggression. Terrorism also endangers the U.S.-Soviet relationship, since each country accuses the other of supporting terrorist organizations. Admiral Stansfield Turner, former director of the U.S. Central Intelligence Agency, is co-authoring a book with Sherman Teichman on the nature and extent of the terrorist threat to the United States and the American people. He is examining how the nation has responded to terrorism in the past, considering possibilities for international cooperation, especially with the Soviet Union, and assessing means to deter or counter terrorism, including the use of force, improved intelligence, and better security. The book, to be entitled *Terrorism and Democracy*, is intended to educate the American people about terrorism and to clarify ways in which democratic societies can cope with terrorism while avoiding regressive actions. Sherman Teichman is a professor of political science at Tufts University and director of Tufts' Experimental College Project on International Terrorism and Political Violence.

American Academy of Arts and Sciences

\$50,000

The American Academy of Arts and Sciences, through its Committee on International Security Studies, and the British Royal Institute of International Affairs have begun a joint study of the technical, military, and political implications of the development and deployment of anti-tactical ballistic missile (ATBM) defenses in Europe. ATBMs consist of non-nuclear, ground-based interceptor missiles and radar systems that defend against short- and intermediate-range missiles carrying nuclear, conventional, or chemical warheads. Although more developed than technologies for the space-based strategic defense system, ATBMs have not yet been deployed in large numbers by either the United States or the Soviet Union. This study provides a comprehensive view of ATBM technologies, assesses Soviet advances, considers ATBMs in light of North American Treaty Organization doctrine and European politics, and analyzes the possible effect of ATBMs on arms control and the Anti-Ballistic Missile Treaty. The study panel of American and European experts is headed by Jeffrey Boutwell, staff associate for international security studies at the Academy, and Donald L. Hafner, associate professor of political science at Boston College. The results are to be published in March 1988 in the report, *European Missile Defenses: ATBMs and Western Security*, edited by Hafner and John Roper, and made available to policymakers and the public through workshops and briefings.

International Council of Scientific Unions

\$50,000

In 1985 the Corporation made a grant to the International Council of Scientific Unions (ICSU), the association of the world's major scientific academies and associations, toward a project on the Environmental Consequences of Nuclear War

(ENUWAR). The project brought together almost 300 scientists from 30 countries in conferences and workshops held around the world. The two-volume report issued by ICSU supported the hypothesis that a “nuclear winter” would result from nuclear explosions and asserted that the indirect consequences of nuclear war, especially on atmospheric and climactic conditions, might even exceed the direct consequences. The current grant has allowed ICSU to continue investigations into the physical and biological effects of nuclear war through experimental and modeling research, to facilitate comprehensive case studies of the consequences of nuclear war on specific nations, and to maintain an active outreach program to disseminate the findings to policymakers and the public. Corporation support was used toward the research activities of American scientists in the United States and toward their travel expenses to attend a major ENUWAR workshop on the environmental consequences of nuclear war held in Bangkok, Thailand.

Discretionary Grants

<i>Center for Strategic and International Studies</i> , toward a conference on the management of international crises	\$25,000
<i>Columbia University</i> , toward research and writing on the political psychology of U.S.-Soviet relations	\$25,000
<i>The Fund for Peace</i> , toward a U.S.-Soviet conference on film portrayals of the two countries	\$25,000
<i>Global Outlook Education Institute</i> , for dissemination of the results of a study on arms control compliance	\$25,000
<i>Harvard University</i> , toward a conference on the 1962 Cuban missile crisis	\$25,000
<i>Massachusetts Institute of Technology</i> , toward a project on the social and political implications of science and technology in the Soviet Union	\$25,000
<i>Nuclear Control Institute</i> , toward dissemination of the results of the International Task Force on Prevention of Nuclear Terrorism	\$25,000
<i>Pugwash Conferences on Science and World Affairs</i> , toward an international workshop on the prevention of accidental nuclear war	\$25,000
<i>Stanford University</i> , toward research on accidental or inadvertent nuclear war	\$25,000
<i>Texas, University of, at Austin</i> , for planning a program of research on peacekeeping and international security	\$25,000
<i>Texas, University of, at Austin</i> , for research on audience reactions to <i>Amerika</i> , a television series	\$20,600

Aspen Institute for Humanistic Studies **\$300,000**

Despite the importance of decisions made by the Congress on a wide range of issues relating to the Soviet Union, including matters of security and defense, foreign policy, alliance politics, and trade, there is at present no one in the House of Representatives or in the Senate who is recognized as a specialist on the Soviet Union and U.S.-Soviet relations. To address this serious lack, three years ago former Senator Dick Clark began a series of three-day workshops to bring a bipartisan group of senators and congressmen together with European parliamentarians and leading specialists on the U.S.S.R. In conferences and breakfast meetings, American legislators are educated about various aspects of Soviet affairs and U.S.-Soviet relations and exposed to European perceptions of the Soviet Union. Discussion has been extended to Soviet and American policies toward the countries of Central and Eastern Europe. The project, headed by Clark and assistant director Michael E. Mandelbaum, senior fellow, Project on East-West Relations, Council of Foreign Relations, is expected to run until the Congress reconvenes in 1989.

Discretionary Grants

<i>Institute for East-West Security Studies</i> , for a study group on strategic stability	\$20,000
<i>Massachusetts Institute of Technology</i> , toward a seminar on foreign politics and the national interest for national security policymakers	\$25,000
<i>The RAND Corporation</i> , for a workshop on nuclear and space arms control	\$17,600

Education of the public

Public Agenda Foundation **\$700,000**

One focus of the program, *Avoiding Nuclear War*, is to communicate to the general public the results of the research and analysis supported by the Corporation in order to help the public better understand the complex realities of the nuclear age and reach more informed conclusions about U.S. policy options on issues of international security. In 1986, the Corporation made a grant toward a study of public attitudes and knowledge about nuclear arms policy that was carried out jointly by the Public Agenda Foundation (PAF) and the Center for Foreign Policy Development at Brown University. In the first part of the project, PAF determined the level of knowledge and range of opinion on nuclear issues within the general public and among community leaders across the country. With this research completed, the project team is embarking on the education program, in which it will present a

realistic range of attitude and policy options to people and help them choose among them based on their own values and concerns. It will develop and use video and print materials in public choice campaigns held in four medium-sized cities that are geographically, demographically, and politically diverse. The results of these campaigns will be made available to presidential and congressional candidates and the media. The project, headed by Herbert A. Wagner, III, is receiving support from several other sources, including the William and Flora Hewlett Foundation and the John D. and Catherine T. MacArthur Foundation.

Scientists' Institute for Public Information

\$400,000

In 1985 the Corporation made a grant to the Scientists' Institute for Public Information (SIPI) to expand its Media Education Project in Military Technology, National Security, and Arms Control. The purpose of the project is to improve the public's understanding of scientifically and technically complex issues that are relevant to national security by improving the media's coverage of these issues. SIPI's Media Resource Service (MRS), which offers members free referrals to appropriate scientists 24 hours a day, seven days a week, has become a well-established and well-respected "source of sources" for print and broadcast journalists. With the current grant, SIPI is expanding MRS to identify security specialists for television appearances, conducting a series of meetings between security specialists and policymakers in media organizations, and initiating outreach efforts to commercial and independent television companies to urge more attention to security and arms control issues. SIPI staff is also working together with leading academic and private institutions in the security and arms control field to improve media contact and communication. This grant contributes to the overall budget of the project, now called the Media Education Project on National Security Issues, for two years.

The Fund for Peace

\$300,000

The many scholars conducting research and writing on various aspects of the decision-making process in the U.S. government need access to the most complete possible information about how national security policy and crisis decisions have actually been made. The National Security Archive, a project of The Fund for Peace, is a library and research facility whose purpose is "to identify, obtain, index, analyze, and house in a single location in Washington contemporary declassified and unclassified U.S. government documents pertaining to foreign, defense, intelligence, international, economic, and national security policy and to disseminate this material at low cost and in an accessible manner to research facilities throughout the country." Created by Washington *Post* reporter Scott Armstrong, the Archive compiles and indexes collections of documents, and it makes available to libraries and scholars the volumes of documents released every year under the Freedom of Information Act and through normal declassification processes. The Archive negotiates and litigates on behalf of individuals and organizations seeking materials that the staff would like to add to the Archive. The Ford Foundation and the

Roderick MacArthur Foundation are among the many other foundations supporting the Archive in its initial period.

American Association for the Advancement of Science **\$350,000**

Natural and behavioral scientists and technologists can make important contributions to reducing the risk of nuclear war, since questions of scientific fact and judgment are central to most public and policy discussions about nuclear weapons. In 1981, the American Association for the Advancement of Science (AAAS) created the Committee on Science, Arms Control, and National Security to focus the resources of the AAAS on exploring and developing effective approaches to conflict resolution, the control of nuclear weapons, and the improvement of national security. With Corporation support, the AAAS has sought to improve understanding of the scientific and technical aspects of arms control issues among the public and policymakers through three kinds of activities: an annual colloquium on science, arms control, and national security that brings together the scientific and scholarly communities with policymakers; a series of seminars for members of Congress and their staffs where technical and policy specialists provide information on arms control and security issues; and a series of publications, including books, monographs, and issue papers, analyzing and explaining nuclear arms control and security issues. The current grant permits the AAAS to continue these activities and will result in several publications on technology and policy-related issues.

Educational Broadcasting Corporation **\$250,000**

In 1986 the Corporation made a grant to the Educational Broadcasting Corporation to produce a public television series on the U.S.-Soviet relationship entitled *Global Rivals*. The Corporation has renewed its funding to accelerate production, since the changes occurring in the Soviet Union and in U.S.-Soviet relations make this series particularly timely and important. Combining studio reporting, documentary films, interviews, essays, and discussion, the series will address two central questions: What is the nature of the conflict between the U.S. and the U.S.S.R.? How can it be handled to avoid nuclear war? In four one-hour programs, *Global Rivals* will consider the current state of relations in the 1980s, the differences between the two nations that make their relationship difficult to manage, the superpower relationship in the context of the global arena and regional conflicts, and developments in arms control. Seweryn Bialer, Ruggles Professor of Political Science and director of the Research Institute on International Change at Columbia University, is senior adviser.

Roosevelt Center for American Policy Studies **\$200,000**

In 1986 the Roosevelt Center for American Policy Studies administered a national educational program on the spread of nuclear weapons to other nations and groups. Called the WILDFIRE campaign, the program used educational materials, a film

on nuclear proliferation, and a simulation game to educate more than 6,000 people in 75 communities about security issues. The success of this program has led the Center staff to design an educational program on the long-term policy implications of proliferation and security issues to be carried out during the 1988 presidential campaign. In the early months of the primaries, the Center will run educational campaigns in New Hampshire and Iowa so that citizens will be able to raise and discuss nuclear issues in depth with the candidates. The Center will also hold briefings for the candidates and the media. In later primaries the Center will encourage the media to produce short, balanced programs on key nuclear issues. The Center will continue its educational efforts throughout the election year in cooperation with other nonpartisan groups such as the League of Women Voters. The project is headed by Roger Molander, a nuclear engineer who worked on nuclear strategy and arms control issues as a member of the National Security Council.

American Civil Liberties Union Foundation

\$150,000

The Center for National Security Studies is a joint project of the American Civil Liberties Union Foundation and The Fund for Peace. Founded in 1974 by Morton H. Halperin, director of the Washington, D.C., office of the American Civil Liberties Union, the Center conducts a program of research, litigation, and public education to promote the rights of American citizens to obtain and publish information related to national security. At the request of Congress, the Center helped to strengthen the provisions of the Freedom of Information Act in 1974. It has since brought suit, or assisted others in litigation, to enforce or clarify aspects of the Act. The Center also provides materials and training for individuals wishing to obtain information under the Freedom of Information Act. This grant renews support for the project made by the Corporation in 1984.

Arms Control Association

\$150,000

The Arms Control Association is a nonpartisan national membership organization that was founded in 1971 to increase the public's understanding of the arms control process and its contribution to national security. Recognizing that most Americans derive their views and knowledge of these issues from the print and electronic media, the Association began a program of briefings and other information activities for the Washington press corps. The current three-year grant allows the Association to expand this pilot program. Each year the Association holds at least 12 press briefings for the entire Washington press corps in which a specialist or a panel of specialists discusses a subject of topical concern to journalists. The Association staff provides background materials and fact sheets for each briefing. Occasional meetings for small groups of invited correspondents are held to allow in-depth discussion of particular aspects of arms control.

League of Women Voters Education Fund

\$125,000

The League of Women Voters Education Fund disseminates clear, objective information and stimulates discussion of policy issues that concern the public. In order to strengthen the League's capacity to educate the public on national security and arms control issues in the upcoming election campaigns, the League is initiating a training program for its members. In May the League held a two-day leadership training conference to bring members up to date on current issues and share what has been learned about running effective citizen education efforts. Following the conference, League members developed a concise, step-by-step guide to conducting locally based citizen education activities on national security issues. With this grant the League will also provide small grants to members who agree to lead at least two educational events in their states or regions during the following year.

Parliamentarians Global Action for Disarmament, Development, and World Reform

\$125,000

Parliamentarians Global Action (PGA), a group of more than 600 legislators in 36 countries, was formed to promote peace and international security through innovative approaches to disarmament. In 1985 a Corporation grant to PGA supported the Six Nation Initiative, a program to involve non-nuclear nations and their leaders in the arms control process, and associated public education activities. At their summit meeting in Ixtapa, Mexico, the six national leaders participating in the Initiative drafted an extensive, detailed proposal to President Reagan and General Secretary Gorbachev for monitoring a nuclear testing moratorium, which contributed to reversing the Soviet position on on-site verification. They have met with leaders of the five nuclear powers to propose a series of verification measures and offer their assistance in verification procedures. With Corporation support, PGA has worked in the United States to educate policymakers and the public on the international dimensions of the nuclear arms race and arms control issues through briefings and meetings with members of Congress and their staffs, key members of the Reagan administration, and the media. The current grant provides partial support for staff salaries, publication costs, and other expenses of PGA's education activities in the U.S.

Stanford University

\$117,400

In 1987 Stanford University inaugurated a symposium series to celebrate its centenary with a weekend symposium entitled "Building a Safer 21st Century." The symposium was intended to focus nationwide attention on the responsibility of institutions and individuals for the avoidance of nuclear war and the generation of creative ways to decrease the dangers of war. It included several keynote addresses, panel discussions, and meetings with leading scholars, diplomats, and public figures from both the United States and abroad. Topics discussed were security, stability, and nuclear arms reductions; conflict and risk avoidance; and regional

conflicts. A digest of the proceedings will be published and disseminated. The conference was directed by Sidney D. Drell, co-director of Stanford University's Center for International Security and Arms Control.

ACCESS: A Security Information Service

\$100,000

In 1986 the Corporation made a grant to ACCESS to develop a long-range plan to facilitate public access to information, research, and analysis on security issues. At present, ACCESS staff members provide information and referrals to specialists in response to inquiries, usually by telephone. To help the callers understand the information provided, ACCESS has begun to produce a series of "research briefs." Each brief provides a short overview of the salient issue, summarizes the most important points of view and areas of discrepancy, and provides an annotated guide to resources. A longer periodical bulletin, *Security Spectrum*, will provide a more detailed perspective on major security questions. This one-year grant is allowing ACCESS to assume responsibility for three basic directories in the security field. The staff will publish a directory of security information resources, both individual and institutional. It will update *Search for Security*, a directory of foundations interested in security issues that was produced in 1985 by The Forum Institute, and it will revise and publish *The Grassroots Peace Directory*, a regional directory of local public-interest organizations concerned with peace and security.

Committee for National Security

\$100,000

Since 1980 the Committee for National Security (CNS) has been providing research services and educational materials on security-related issues to community leaders and organizations to encourage citizen participation in the debate on U.S. military and foreign policy. One of its projects is a series of books entitled *Beyond the Kremlin*, which looks at Soviet politics, culture, people, and problems through collected primary sources and commentaries. Written for non-specialists, the overall aim of the series is to consider the similarities and differences between the U.S. and U.S.S.R. and discuss how the countries threaten each other. The first book in the series, *The Other Side: How Soviets and Americans Perceive Each Other*, was published by Transaction Books. Four more volumes are expected to be released in 1988-89 covering Soviet attitudes toward defense; the roles of religion, ideology, and values in traditional Russian and contemporary Soviet society; Soviet science and technology; and women in Soviet society. The project is headed by Anne H. Cahn, CNS's director. The study director is Jonathan J. Halperin, who co-authored the first book with Robert D. English, a Soviet specialist at CNS.

First Parish in Cambridge

\$75,000

Cambridge Forum, a nonprofit public affairs radio program, was begun in 1967 as a community event at the First Church (Unitarian Universalist) in Cambridge, Mas-

sachusetts. The weekly half-hour radio series, broadcast in association with WGBH-FM in Boston, has a large following in the United States and Canada and is distributed to 140 public, education, and commercial stations via the National Public Radio satellite. Since the early 1970s, one of the main focuses of *Cambridge Forum's* radio programs has been the prevention of nuclear war. Under this three-year grant, *Cambridge Forum* is producing ten broadcasts a year on this topic. The programs feature many scholars involved in projects supported as a part of the Corporation's program on avoiding nuclear war. In addition to the usual means of distribution, these shows are being promoted by direct mail to stations that have broadcast *Cambridge Forum* shows in the past and are also available on audiocassette. *Cambridge Forum* is directed by Herbert F. Vetter, chaplain of Harvard University.

Stanford University

\$60,900

For several years Stanford University's Center for International Security and Arms Control has conducted seminars and other activities to encourage accurate and timely media coverage of national security and arms control issues. This grant allowed the Center to invite David Perlman, the distinguished science writer and associate editor of the *San Francisco Chronicle*, to spend a year at the Center evaluating and improving the Center's efforts in this area. Perlman worked with the Center's scholars to help them find ways to communicate their findings to media organizations and through them to the public. He focused on press coverage of the technical and political aspects of arms control negotiations, the technical and political ramifications of the Strategic Defense Initiative, and weapons deployment and security relations in Europe. Perlman developed model fact books and briefing papers for reporters and commentators and helped the Center design seminars and briefings for the press. This grant covered Perlman's salary and expenses for one year.

General

Discretionary Grants

<i>Bank Street College of Education</i> , for participation in a U.S.-Soviet project on the application of computers in the early elementary school grades	\$18,000
<i>California, University of, San Diego</i> , for a workshop on an international project on the application of computers in the early elementary school grades	\$5,500
<i>California, University of, San Diego</i> , for planning an international project on the application of computers in the early elementary school grades	\$6,500
<i>California, University of, San Diego</i> , toward a U.S.-Soviet project on the application of computers in the early elementary school grades	\$18,000

<i>Hunter College</i> , for participation in a U.S.-Soviet project on the application of computers in early elementary school grades	\$18,000
<i>International Research & Exchanges Board</i> , for planning a U.S.-Soviet project on the application of computers in the early elementary school grades	\$24,900
<i>Massachusetts, University of, Boston</i> , for participation in a U.S.-Soviet project on the application of computers in the early elementary school grades	\$17,750
<i>National Academy of Sciences</i> , for planning exchanges on health issues between the Institute of Medicine and Soviet Academy of Medical Sciences	\$25,000

SPECIAL PROJECTS

The grants described as special projects fall outside the foundation's four specific programs. They support projects identified with previous grant programs, exploration of new ideas that do not fit current programs, special undertakings related to but broader than specific program priorities, and projects that promote the foundation's long-standing interest in strengthening the nonprofit sector. The Corporation made several grants this year in commemoration of the 75th anniversary of the foundation.

Minority issues

Southern Regional Council

\$500,000

The decennial United States Census serves as the basis for redrawing political district lines, an effort undertaken to maintain roughly equal representation of the voting population in each district. The Corporation's three-year grant is helping the Southern Regional Council, an Atlanta-based organization founded in 1944, to develop and coordinate a working relationship among groups striving to assure that the redistricting following the 1990 Census is fair and accurate. The Council will also advise litigants in their actions against the biased redistricting lines that do get drawn and act as a clearinghouse of information on the size, distribution, and voting trends of the minority population, historically most affected by redistricting. The Council concentrates its efforts in 11 southern states where the largest number of past redistricting offenses has occurred and where the funds necessary for battling unjust redistricting are often short. It publishes *Voting Rights Review*, a quarterly focusing on voting issues, and prepares model plans for redrawing of district lines. The Council's activities following the 1990 census will be divided among three interacting subprograms: Project 1990, which will concentrate mainly on helping local leaders contest unfair redistricting themselves; the Voting Rights Project, which will address especially complicated redistricting problems by relying more directly on participation by experts in the field; and Database South, which will collect the raw data on which the previous two programs base their work.

National Academy of Sciences

\$150,000

Nearly 40 years ago, the Corporation sponsored Gunnar Myrdal's classic study of the status of black Americans, *An American Dilemma*. This one-year grant is helping the Commission on Behavioral and Social Sciences and Education of the National Academy of Sciences to produce an updated report on the current status of blacks in the United States. The report examines the changes that have occurred during the past four decades and prescribes further action toward the political and social equality that American blacks have yet to attain. A 22-member committee of

distinguished scholars is producing a seven-volume study based on existing data and on new research being conducted by five panels of experts. The panels will cover education; employment, income, and occupations; health status and demography; political participation and administration of justice; and social and cultural change and continuity. Six of the seven volumes will be devoted to these areas, and the seventh will be a synthesis of the entire study. Upon completion of the report, the Academy will formally release it at a major national convocation on the current and future status of black Americans.

Philanthropy and nonprofit institutions

The Urban Institute **\$75,000**

Since 1981, a research team directed by Lester M. Salamon of the Urban Institute's Center for Public Management and Economic Development Research has been conducting a multi-year study of the scope, structure, and finances of the nonprofit service sector (excluding hospitals and higher education) and how government policy changes affect the sector and the people it serves. The Institute is using this one-year grant to complete the first phase of its continuing study. Previous Corporation support helped the Institute produce 24 local reports from studies conducted at 16 sites and more than six national-level reports, in addition to numerous articles and speeches. Initial findings suggest that this decade's cutbacks in federal aid to private nonprofit organizations have not been adequately counterbalanced by money from state, local, or other sources and that the effects of this diminished funding have been pervasive. In general, the poor are less well-served in the 1980s than they were in the 1970s. If present trends continue, the neediest people could become a significantly smaller proportion of the clientele of nonprofit organizations. This grant is a final grant toward completion of the local and national follow-up studies.

Discretionary Grants

<i>Association of American Colleges</i> , toward a program to promote undergraduate courses on philanthropy	\$25,000
<i>Council on Foundations</i> , 1987 membership support	\$24,700
<i>Facing History and Ourselves National Foundation</i> , toward development and dissemination of a school curriculum on voluntarism and the nonprofit sector	\$25,000
<i>Foundation Center</i> , toward distribution of a documentary film on foundations in the United States	\$25,000
<i>Independent Sector</i> , 1987 membership support	\$7,400
<i>National Charities Information Bureau</i> , toward a review of standards for evaluating charitable organizations	\$25,000

<i>National Charities Information Bureau, toward support</i>	\$15,000
<i>New York Regional Association of Grantmakers, 1987 membership support</i>	\$7,125
<i>Nonprofit Coordinating Committee of New York, 1987 membership support</i>	\$975

General

Consortium for the Advancement of Private Higher Education \$550,000

The Consortium for the Advancement of Private Higher Education (CAPHE) is a national organization founded in 1984 to provide grants, contracts, and technical assistance to private colleges and universities that are developing and testing model solutions to major institutional problems. This one-year grant completes the Corporation's three-year commitment to support CAPHE's basic operating expenses during its start-up phase and to provide one dollar for every two dollars raised from other sources for its substantive program. The nine-member CAPHE board with president Michael O'Keefe awards grants up to a maximum of \$50,000 to private colleges and universities for projects in one of four areas: planning for changes in college enrollments and student backgrounds; application of market analysis techniques to student recruitment and retention; studies of the possible curricular changes implied by student interest in careers and technology; and faculty and staff development for making needed changes. In its first two years, CAPHE received 186 proposals and made 70 grants totalling \$2,046,680. Along with its grant-making activities, CAPHE sponsors conferences, seminars, individual consultations, and studies of specific problem areas for grantee institutions and for interested applicants who do not receive funding.

American Council of Learned Societies \$345,000

The American Council of Learned Societies (ACLS), composed of 45 societies representing the full range of humanistic scholarship in the United States, has received periodic support from the Corporation since 1923. This three-year grant is helping the ACLS to maintain its fellowship program for recent recipients of the doctoral degree, which emphasizes aid to women and minority members and seeks to promote young scholars in both their immediate work and their academic careers. This assistance is especially important now, when qualified applicants far outnumber available faculty positions at colleges and universities. Begun in 1975, the fellowship program has been partially underwritten by the Corporation for the past five years. Fellowships carry a maximum stipend of \$10,000, and fellows must devote a minimum of six months to full-time research. The program has received an average of 280 applications and awarded 38 fellowships to recent Ph.D. recipients in a wide range of fields and institutions. This grant, along with funds from the ACLS and the National Endowment for the Humanities, is providing general support for the fellowship program until an endowment fund is established to make the program self-sufficient. The projected date for establishment of the endowment is 1990.

Commission on College Retirement

\$252,500

The Commission on College Retirement was established in 1984 with funds from the Corporation as well as from the Ford, Andrew W. Mellon, and William and Flora Hewlett foundations. Its purpose is to review the role and function of college and university retirement programs and to make recommendations for improvements in such programs for the future. During the past three years, individual reports on a fixed retirement age, on the transferability of funds into and out of the Teachers Insurance and Annuity Association (TIAA) and its affiliate College Retirement Equities Fund (CREF), and on optimum pension design have been released. These reports are having a noticeable effect on institutional thinking and planning. The Commission's comprehensive final report, to be published in 1988, contains two new studies on long-term health care and on administrative and professional services. This six-month grant enabled a reduced Commission staff, under the co-directorship of Colin G. Campbell, president of Wesleyan University, and Thomas O'Brien, financial vice president of Harvard University, to work toward implementation of the recommendations contained in the new reports. The Commission also used this extension to explore the legal issues regarding the transferability of TIAA-CREF funds to other pension programs.

Harvard University

\$225,000

The Commission on College Retirement has identified long-term nursing care as the most critical unmet insurance need of retired individuals. Under most current insurance programs, individuals must use their own resources for such care until those resources are exhausted, after which they are eligible for Medicaid, the public program that aids the indigent. A 1985 Corporation grant enabled the Commission to work with a small group of colleges and universities to develop a feasible plan for meeting the long-term care needs of retired personnel. Commission member Thomas O'Brien, financial vice president of Harvard University, has used the Commission's findings to propose a revised pension program for the retired faculty and staff at Harvard. This one-year grant is enabling O'Brien and a small staff, including other Commission members who worked on the problem, to determine whether Harvard's proposed pension plan can become a prototype that could be adopted by other colleges and universities. When the plan is complete, O'Brien and his staff will disseminate it to institutions of higher education throughout the country. They will also prepare proposals to insurance companies to see if such a plan can be made financially feasible.

National Academy of Social Insurance

\$200,000

Social insurance is the single most important source of protection for working and retired persons in the United States. Social Security and Medicare together account for one-half of all domestic expenditures by the federal government, yet these programs are not widely studied or commonly well-understood. No central body

exists to research or promote reforms. To that end a group of experts in the field, headed by Robert M. Ball, former Commissioner of Social Security, has founded the National Academy of Social Insurance to foster a research agenda, promote the exchange of ideas among members, and contribute to public education. The Corporation's three-year grant supplements a previous discretionary grant and is being used to support the Academy as it establishes itself and secures further sources of funding. When fully operational, the Academy will include 200 members from a variety of backgrounds including business, labor, government, and the academic community. It will publish a newsletter to disseminate information on social insurance research, organize meetings and conferences on topical issues, serve as a clearinghouse of information, and offer awards for outstanding writing on social insurance.

Southport Institute for Policy Analysis

\$175,000

Since his departure as president of the Corporation in 1982, Alan Pifer has directed two major Corporation-funded projects: the Aging Society Project, which examined the social, economic, political, and institutional implications of America's rapidly aging society; and the Project on the Federal Social Role, which sought to make recommendations about the nature of federal social responsibility in light of the major social and economic problems the nation will confront in the coming decades. Each project has produced a mass-market book as well as numerous scholarly reports. Although the major work on both projects is complete, this 27-month grant is allowing Pifer to establish the Southport Institute for Policy Analysis, which along with its other nonprofit activities will continue disseminating the projects' results. The Institute will also conduct further studies of the aging society, including the special problems of aging women; ethical issues arising from the medical profession's ability to keep increasing numbers of people alive to advanced ages; and the growing importance of those in the "third quarter of life," the period roughly between ages 50 and 75, whose number will grow to nearly a third of the population early in the 21st century.

American Citizenship Education Project

\$150,000

In 1984 the Corporation joined 27 foundations and corporations in support of the American Citizenship Education Project's public education program urging American citizens to register and vote in the 1984 national, state, and local elections. With this 20-month grant the Corporation joins the Office of Federal Voting Assistance, the National Association of Secretaries of State, and the Charles H. Revson and Ford foundations in support of a second effort focused on the 1988 presidential campaign and elections, utilizing and expanding upon knowledge gained in 1984. As in 1984, the new campaign will consist mainly of nonpartisan public service announcements over television and radio and in print media, many featuring celebrities considered positive role models by voting-age groups. This second public education effort calls for a full-time staff person who will work

extensively with representatives of all media to ensure maximum distribution. A formal evaluation scheme will track responses to the education program and otherwise gauge its effectiveness with target audiences. The lessons learned from this evaluation may be useful not only to future get-out-the-vote efforts but to organizations interested in using the media to promote other public interest issues.

Carnegie Institution of Washington

\$125,000

This one-year grant completes the Corporation's support of the postdoctoral fellowship program in the natural sciences at the Carnegie Institution of Washington. The Institution, founded by Andrew Carnegie in 1902 for scientific research, was established at a time when relatively few colleges and universities were involved in fundamental scientific research. It now operates five research institutions, including the Mount Wilson and Las Campanas Astronomical Observatories in California and Chile, respectively; an embryology laboratory in Baltimore; a plant biology laboratory on the Stanford University campus; and two physical science laboratories in Washington. Under the fellowship program, recent recipients of the doctoral degree are invited to work at one of its facilities. Over the years a number of fellows have stayed on to become permanent members of the staff.

Discretionary Grants

<i>American Council on Education</i> , toward a conference on college retirement	\$25,000
<i>California, University of, Los Angeles</i> , for a monograph on the political consequences of Adolf Hitler's pathological personality	\$25,000
<i>Center for Responsive Politics</i> , toward a project on the role of political action committees in congressional campaign finance	\$25,000
<i>Citizens Network for Foreign Affairs</i> , toward support	\$25,000
<i>Michigan, University of</i> , toward the Aging Society Policy Studies Center	\$24,900
<i>National Conference on Social Welfare</i> , toward dissemination of the publications of the Project on the Federal Social Role	\$25,000
<i>National Council for Research on Women</i> , toward support	\$25,000
<i>Wesleyan University</i> , toward a conference on the impact of remedial law on organizations	\$20,000

75th Anniversary Fund

The Foundation Center

\$750,000

The Foundation Center was created by the Corporation in 1956 to assemble and maintain a public library of reports, grant indices, and studies originating from

foundations. Since its founding it has come to operate four full-service libraries in New York, Washington, Cleveland, and San Francisco and to support a network of 170 affiliated collections in public libraries across the country. It is a respected publisher of reference books and general titles in philanthropy and a sponsor of educational programs. This five-year grant is helping the Center develop and implement a plan to expand its services further. The plan includes new computerized information systems (principally an integrated data file and an electronic delivery system) and increased publications, both print and electronic, which will more fully list current foundation and corporate funding sources. The Foundation Center will also maintain comprehensive listings of grant makers according to subject and geographical distribution and an index of all published literature relevant to the philanthropic process. Increased services for walk-in and phone-in library users are anticipated, along with seminars on the grant-making process for new grant seekers, and a special collection and archive designed to enable scholars, media writers, and other observers of the field to gain a rapid overview of the philanthropic process and pinpoint topics for further inquiry.

American Library Association

\$560,000

Eighty-seven percent of American libraries now have videocassette collections, and most find that videocassette availability increases library patronage. This 18-month grant is enabling the American Library Association (ALA) to help libraries acquire more comprehensive, high-quality collections of educational videocassettes. The ALA is developing three training videos on libraries' use of videotapes for librarians, schoolteachers, and community organizations and creating a printed inventory of recommended educational videotapes for library distribution. It is also developing a more intensive training program for librarians in the selection and handling of videotapes; conducting a study to determine the feasibility of setting up a video-buying cooperative that will sharply reduce costs to participating libraries; and administering a program that will solicit proposals from, and donate videocassette recorders to, several hundred of the original Carnegie libraries. This grant is especially appropriate during the year of the Corporation's 75th anniversary as a commemoration of Andrew Carnegie's commitment to the development and maintenance of a strong public library system in the United States.

Discretionary Grants

<i>Carnegie Dunfermline Trust</i> , toward maintenance of the Andrew Carnegie Birthplace Memorial	\$25,000
<i>Nebraska, University of, Omaha</i> , toward development of a traveling exhibition on Andrew Carnegie and his library gifts	\$25,000

PUBLICATIONS AND NONPRINT MATERIALS RESULTING FROM GRANTS

The following print and nonprint materials resulting from projects funded wholly or in part by Carnegie Corporation were produced in 1986-87. The list does not include papers published in scientific professional journals; nor does it include newspaper and magazine articles.

Education: Science, technology, and the economy

Contextual Factors in Education: Improving Science and Mathematics Education for Minorities and Women, edited by Michael Cole and Peg Griffin, Laboratory of Comparative Human Cognition, prepared for the Committee on Research in Mathematics, Science, and Technology Education, Commission on Behavioral and Social Sciences and Education, National Research Council (Wisconsin Center for Education Research, School of Education, University of Wisconsin-Madison)

The DRP: An Effectiveness Measure in Reading, by Bertram L. Koslin, Susan Zeno, and Sandra Koslin, with the assistance of Howard Wainer, Educational Testing Service, and Stephen H. Ivens, College Entrance Examination Board (Touchstone Applied Science Associates, Inc.)

Education and Learning to Think, by Lauren B. Resnick (National Academy Press)

Family Math, by Jean Kerr Stenmark, Virginia Thompson, and Ruth Cossey, Lawrence Hall of Science (University of California, Berkeley)

Great Explorations in Math and Science (GEMS) Project (The Regents of the University of California):

Fingerprinting, Teacher's Guide, by Jeremy John Ahouse

Quadice, Teacher's Guide, by Elizabeth Stage, Herbert Thier, Ruth Cossey, and Robert Karplus

Animal Defenses, Teacher's Guide, by Jean Echols

Mapping Animal Movements, Teacher's Guide, by Katharine Barrett

Manufacturing Matters: The Myth of the Post-Industrial Economy, by Stephen S. Cohen and John Zysman (Basic Books, Inc., Publishers)

Mirrors of Minds: Patterns of Experience in Educational Computing, edited by Roy D. Pea and Karen Sheingold (Ablex Publishing Corporation)

The New Alliance: America's R & D Consortia, by Dan Dimancescu and James Botkin (Ballinger Publishing Company)

New Priorities for the University: Meeting Society's Needs for Applied Knowledge and Competent Individuals, by Ernest A. Lynton and Sandra E. Elman (Jossey-Bass Publishers)

Results in Education: 1987, The Governors' 1991 Report on Education (National Governors' Association)

Science as a Way of Knowing, IV-Developmental Biology (American Society of Zoologists)

Technology and Global Industry: Companies and Nations in the World Economy, edited by Bruce R. Guile and Harvey Brooks, National Academy of Engineering Series on Technology and Social Priorities (National Academy Press)

This Year in School Science 1986: Science Curriculum, edited by Audrey B. Champagne and Leslie E. Hornig (American Association for the Advancement of Science)

Toward healthy child development: The prevention of damage to children

Childbearing Among Hispanics in the United States: An Annotated Bibliography, compiled by Katherine F. Darabi (Greenwood Press)

Child Care: Facing the Hard Choices, by Alfred J. Kahn and Sheila B. Kamerman (Auburn House Publishing Company)

Clinical Research in Schizophrenia: A Multidimensional Approach, edited by Roy R. Grinker, Sr., M.D., and Martin Harrow, Ph.D. (Charles C Thomas, Publisher)

Keeping Students in School, by Margaret Terry Orr (Jossey-Bass Publishers); also *What to Do About Youth Dropouts? A Summary of Solutions*, by Margaret Terry Orr (Structured Employment/Economic Development Corporation [SEEDCO])

The Pharmacologic Treatment of Tobacco Dependence: Proceedings of the World Congress, November 4-5, 1985, edited by Judith K. Ockene (Smoking Behavior and Policy Conference Series, Institute for the Study of Smoking Behavior and Policy, John F. Kennedy School of Government, Harvard University)

Teens in Foster Care: Preventing Pregnancy and Building Self-Sufficiency, by MaryLee Allen, Susan R. Miller, and Joan Abbey (Children's Defense Fund's Adolescent Pregnancy Clearinghouse)

"Children in South Africa," by Francis Wilson and Mamphela Ramphele, in *Children on the Front Line: The Impact of Apartheid, Destabilization, and Warfare on Children in Southern and South Africa*, A Report for UNICEF (United Nations Children's Fund)

How Are We Doing? A Framework for Evaluating Development Education Programs, by Roland Case; edited by Martha Keehn and Walter Werner (InterAction)

Perspectives on the Crisis of UNESCO, Report of a Conference, edited by Walter Kohn, Frank Newman, and Roger Revelle (University of California Institute on Global Conflict and Cooperation, University of California, San Diego)

Preventing the Tragedy of Maternal Deaths, A Report on the International Safe Motherhood Conference, prepared by Ann Starrs (World Bank, World Health Organization, and United Nations Fund for Population Activities)

Towards Sustainable Development, Fourteen Case-Studies Prepared by African and Asian Journalists for the Nordic Conference on Environment and Development at Saltsjobaden, Stockholm, 8-10 May, 1987 (The Panos Institute)

A Vision for the Peace Corps (Citizens' Committee on Future Directions for the Peace Corps in cooperation with the International Development Conference)

What Americans Think: Views on Development and U.S.-Third World Relations, prepared by Christine E. Contee (InterAction and the Overseas Development Council)

The Women's Construction Collective: Building for the Future, by Ruth Mcleod, in SEEDS, a pamphlet series

Avoiding nuclear war

Anti-Satellite Weapons and U.S. Military Space Policy (The Aspen Strategy Group and University Press of America)

The Arms Debate and the Third World: Have We Learned from Vietnam?, by Robert A. Levine (The RAND Corporation)

Beyond the Hotline: How We Can Prevent the Crisis That Might Bring on a Nuclear War, by William L. Ury (Houghton Mifflin Company)

Chemical Weapons and Western Security Policy, by the Aspen Strategy Group and the European Strategy Group in cooperation with the Aspen Institute Berlin (The Aspen Strategy Group and University Press of America)

- Crisis Stability and Nuclear War*, a report prepared under the auspices of the American Academy of Arts and Sciences and the Cornell University Peace Studies Program (Cornell University Peace Studies Program)
- Going Nuclear*, by Leonard S. Spector (Ballinger Publishing Company)
- How Should America Respond to Gorbachev's Challenge? A Report of the Task Force on Soviet New Thinking* (Institute for East-West Security Studies)
- Managing Nuclear Operations*, edited by Ashton B. Carter, John D. Steinbruner, and Charles A. Zraket (The Brookings Institution)
- Military Objectives in Soviet Foreign Policy*, by Michael McGwire (The Brookings Institution)
- Narrative Strategy and Nuclear News*, Occasional Paper No. 1, by Robert Karl Manoff (The Center for War, Peace, and Media Studies, New York University)
- Nuclear Blackmail and Nuclear Balance*, by Richard K. Betts (The Brookings Institution)
- Nuclear Crisis Management: A Dangerous Illusion*, by Richard Ned Lebow (Cornell University Press)
- Nuclear Fallacy: Dispelling the Myth of Nuclear Strategy*, by Morton H. Halperin (Ballinger Publishing Company)
- Nuclear Weapons DataBook, Volume II, U.S. Nuclear Warhead Production*, by Thomas B. Cochran, William M. Arkin, Robert S. Norris, and Milton M. Hoenig (Ballinger Publishing Company)
- Political and Military Implications of the "Nuclear Winter" Theory*, Occasional Paper Series No. 5, by Allen Lynch (Institute for East-West Security Studies)
- Preventing Nuclear Terrorism: The Report and Papers of the International Task Force on Prevention of Nuclear Terrorism*, edited by Paul Leventhal and Yonah Alexander (Lexington Books)
- Reading the News: A Pantheon Guide to Popular Culture*, edited by Robert Karl Manoff and Michael Schudson (Pantheon Books)
- SAIS (School of Advanced International Studies) Papers in International Affairs* (Westview Press/Foreign Policy Institute, Johns Hopkins University):
- #12 *Fiscal and Economic Implications of Strategic Defenses*, by Barry M. Blechman and Victor A. Utgoff

#13 *Strategic Defense and the American Ethos: Can the Nuclear World be Changed?*, by Michael Vlahos

#14 *The Soviet Union and Ballistic Missile Defense*, by Bruce Parrott

#15 *SDI and U.S. Foreign Policy*, by Robert W. Tucker, George Liska, Robert E. Osgood, and David P. Calleo

Science Advice to Presidents: From Test Bans to the Strategic Defense Initiative, by G. Allen Greb (University of California Institute on Global Conflict and Cooperation, University of California, San Diego)

Science and Security: The Future of Arms Control, edited by W. Thomas Wander and Kenneth N. Luongo (Program on Science, Arms Control, and National Security, American Association for the Advancement of Science)

The Science and Technology of Directed Energy Weapons, a report of the American Physical Society in *Reviews of Modern Physics*, V.59, No. 3, Part II (July 1987)

Space and National Security, by Paul B. Stares (The Brookings Institution)

Strategic Defense and the Western Alliance, edited by Sanford Lakoff and Randy Willoughby (Lexington Books)

The Strategic Defense Initiative and American Security, An Aspen Strategy Group Report (The Aspen Strategy Group and University Press of America)

The Strategic Defense Initiative: Shield or Snare?, edited by Harold Brown, Foreign Policy Institute, School of Advanced International Studies, Johns Hopkins University (Westview Press)

Superpower Arms Control: Setting the Record Straight, edited by Albert Carnesale and Richard N. Haass (Ballinger Publishing Company)

Special projects

Government for the People — The Federal Social Role: What It Is, What It Should Be, by Forrest Chisman and Alan Pifer (W.W. Norton & Company)

Government Spending and the Nonprofit Sector in New York City, by Alan J. Abramson and Lester M. Salamon (The Urban Institute Press)

Human Services Spending in Chicago: The Changing Roles of Government and Private Funders, by Lester M. Salamon, Pamela A. Holcomb, James C. Musselwhite, Jr., and Kirsten A. Gronbjerg (The Urban Institute Press)

Modern Investment Management and the Prudent Man Rule, by Bevis Longstreth (Oxford University Press)

Rhode Island Nonprofit Organizations: The Challenge of Retrenchment, by Lester M. Salamon, Lisa A. Tunick, and Carol J. De Vita (The Urban Institute Press)

Public Policy and Foundations: The Role of Politicians in Public Charities (The Center for Responsive Politics)

Yale Studies on Nonprofit Organizations, Institute for Social and Policy Studies (Oxford University Press):

The Economics of Nonprofit Institutions, Studies in Structure and Policy, edited by Susan Rose-Ackerman

Nonprofit Enterprise in the Arts, Studies in Mission and Constraint, edited by Paul J. DiMaggio

Private Education, Studies in Choice and Public Policy, edited by Daniel C. Levy

Andrew Carnegie: Sesquicentenary Gathering, 1985 (Carnegie Dunfermline Trust)

REPORT ON FINANCE AND ADMINISTRATION



REPORT OF THE TREASURER

The annual financial statements and additional financial tabulations for Carnegie Corporation of New York appear on pages 100 through 139. The following comments and data supplement that information.

Investments

On September 30, 1987, the market value of the Corporation's investments was \$806.3 million, compared with \$713.5 million on September 30, 1986, and \$272.0 million on September 30, 1977. This is an increase of 13.0 percent in one year and 196 percent in ten years.* Adjusted for inflation, and after allowing for expenditures, the increase over the last ten years has been 64.9 percent, or 5.1 percent compounded annually. During this period, the trustees authorized \$227.1 million for grants, administrative expenses, and federal taxes.

The table below shows the composition of investment assets on September 30, 1987.

Investment assets on September 30, 1987

	Market value	Percent of total	Prior year Percent of total
Equities			
Common stocks	\$279,158,266	34.6%	54.7%
Convertible securities	7,497,417	.9	1.1
Fixed income securities			
Short term	112,922,404	14.0	10.7
Other	334,315,948	41.5	25.3
Limited partnerships	57,001,848	7.2	7.2
Other	15,400,105	1.9	1.0
	<u>\$806,295,988</u>	<u>100.0%</u>	<u>100.0%</u>

*The market value of the Corporation's assets on November 30, 1987, was approximately \$730.0 million.

The Corporation's principal investment objective is to achieve long-term total return, consisting of capital appreciation as well as dividend and interest income, sufficient to maintain the purchasing power of the endowment while continuing to support the program of the Corporation. To monitor performance in connection with this objective, monthly and annual indices of total return on the portfolio are calculated. The index shows a total return of 18.8 percent for the fiscal year ended September 30, 1987. The annual rate of return over the last ten years has been 17.1 percent, compounded annually. In terms of dollars of constant purchasing power, the total return over the last ten years has been 10.1 percent, compounded annually.

The Corporation's trustees delegate investment decisions to investment managers who operate within investment policies and standards set by the trustees. Ninety percent of the funds are managed by three core managers who may invest in both fixed income securities and equities, domestic and international. The remaining 10 percent of the funds are invested by managers who specialize in particular types of investments — special equities, venture capital, and real estate. The finance and administration committee of the board of trustees meets periodically with the core managers. In February 1987, the committee requested the core managers to reduce the percentage of assets held in equities to less than 40 percent and to limit the sensitivity of the fixed-income portion of the portfolio to interest rate fluctuations by reducing its average maturity of those securities. The impact of these changes on portfolio composition is shown in the table above.

During the 1985 fiscal year, the Corporation authorized its managers to invest in foreign securities, with the objective of enhancing the overall rate of investment return. On September 30, 1987, approximately 13.3 percent of the Corporation's investment assets was invested in foreign securities and currencies.

While delegating authority for individual investment decisions to outside managers, the trustees retain ultimate responsibility for investment policy, including policy relating to the public responsibilities of the corporations represented in the investment portfolio.

Income

The gross income from investments for the year ended September 30, 1987, was \$39,504,470, compared with \$36,645,585 the preceding year. Investment expenditures, consisting primarily of asset management fees, amounted to \$2,251,488 in the fiscal year ended September 30, 1987, versus \$2,161,074 a year earlier. Net investment income, when combined with other income, produced total income of \$37,272,824.

Appropriations and expenditures

Each year, the trustees appropriate funds to be used for grants and for projects administered by the officers. Because many of these grants involve multi-year commitments, about one-half of the appropriated funds are spent in years subsequent to the fiscal year in which the original appropriation is made. A total of \$39,516,588 was appropriated in the fiscal year ended September 30, 1987, an increase of 35.1 percent over the corresponding figure for the prior year.

Any balance held by a grantee after a project has been completed or terminated is refunded to the Corporation. If the balance has not been distributed to the grantee, it is cancelled by the Corporation. Refunds and cancellations are listed on page 139 as adjustments of appropriations. For the year ended September 30, 1987, they totaled \$59,132. Net appropriations, therefore, were \$39,457,456. A complete list of grants and other appropriations is shown on pages 106–139.

The general administration and program management expenditures were \$4,182,360 in the fiscal year ended September 30, 1987, compared with \$3,858,001 in the previous fiscal year. A substantial portion of staff activities (\$963,468) was spent for “direct charitable activities.” These activities constitute services provided directly to other exempt organizations, governmental bodies, or the general public. Examples of such services are the provision of technical assistance to grantees and potential grantees; the conduct of educational conferences; research; the publication and dissemination of educational materials; and service on boards of other charitable organizations or public commissions.

The table below shows a breakdown of total expenditures into general administration and program management, direct charitable activities, and investment expenditures for the year ended September 30, 1987.

	General administration and program management	Investment expenditures	Direct Charitable Activities Expenditures	Total
Salaries	\$1,945,331	\$ 159,075	\$404,156	\$2,508,562
Investment advisory and custody fees	—	1,944,645	—	1,944,645
Employee benefits	675,928	54,875	129,397	860,200
Rent	351,349	29,387	69,295	450,031
Travel	210,152	15,671	64,120	289,943
Quarterly and annual reports	69,182	—	141,418	210,600
Conferences and meetings	133,981	9,627	51,688	195,296
Trustees’ honoraria and expenses	185,150	7,481	—	192,631
Consultants	117,573	—	33,599	151,172
Office equipment, services and supplies	114,273	9,558	22,538	146,369
Postage, telephone and messenger services	109,861	9,189	21,667	140,717
Computer equipment and services	65,739	5,498	12,966	84,203
Legal and accounting services	60,352	—	—	60,352
Miscellaneous	15,217	1,128	—	16,345
Copying and duplicating	27,383	2,290	5,400	35,073
Books and periodicals	26,479	2,215	5,222	33,916
Special projects	32,502	—	—	32,502
Insurance	31,754	—	—	31,754
Membership fees and association dues	10,154	849	2,002	13,005
	<u>\$4,182,360</u>	<u>\$2,251,488</u>	<u>\$963,468</u>	<u>\$7,397,316*</u>

* Total expenditures in 1986 were \$6,853,337 which included \$2,161,074 of investment expenditures and \$834,262 of direct charitable activities expenditures.

Under the provisions of the Tax Reform Act of 1969, Carnegie Corporation and other private foundations are subject to a federal excise tax of 2 percent on income and realized capital gains. However, under the Tax Reform Act of 1984, the rate is reduced to 1 percent if the foundation maintains its average expenditure rate of the previous five years and, in addition, spends the savings—1 percent of income and realized capital gains. With the help of increased program appropriations, the Corporation qualified for the reduced rate in fiscal year 1987. The tax savings are estimated to be \$1.6 million. Accrued taxes are carried as a current liability. Taxes on investment income are charged to general administration, and taxes on realized capital gains are charged to the principal fund. The balance sheet on page 100 shows a deferred tax liability of \$1,702,122, representing the potential tax (at 2 percent) on gains as yet unrealized.

Ten-year financial summary

The table below sets forth the growth of investment assets, income, appropriations, and other expenditures over the ten fiscal years ended September 30, 1987. The very significant rise in the market value of investment assets over the past five fiscal years has provided the basis for a very large increase in appropriations in fiscal years 1984 through 1987.

Ten-year financial summary (in thousands)

Fiscal year ended September 30	Market value of investments at year end	Net investment income	Appropriations for grants, and projects —net	Other expenditures*
1987	\$807,142	\$37,273	\$39,432	\$5,632
1986	713,489	34,505	28,686	5,132
1985	564,385	34,966	26,134	5,085
1984	503,943	30,986	19,535	4,231
1983	515,709	27,170	13,231	3,921
1982	380,699	21,875	14,342	3,596
1981	334,999	17,149	12,146	3,075
1980	345,502	18,586	11,464	2,704
1979	294,487	18,614	12,226	2,504
1978	284,501	16,457	11,845	2,199

*Includes direct charitable activities; excludes investment expenditures.

Audit by independent accountants

The bylaws provide that the Corporation's accounts are to be audited each year by an independent public accountant. Accordingly, the firm of Peat Marwick Main & Co. examined the Corporation's financial statements for the fiscal year ended September 30, 1987. The Corporation's financial statements and related schedules, together with the auditor's opinion letter, appear on the following pages.

Opinion of independent accountants

The Board of Trustees
Carnegie Corporation of New York:

We have examined the balance sheets of Carnegie Corporation of New York as of September 30, 1987 and 1986, and the related statements of changes in fund balances for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned financial statements present fairly the financial position of Carnegie Corporation of New York at September 30, 1987 and 1986, and the changes in its fund balances for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Our examinations were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in the schedules on pages 105 through 139 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the examinations of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Peat Marwick Main & Co.

New York, New York
December 2, 1987

Balance sheets

September 30, 1987 and 1986

	1987	1986
Assets		
Investments, at market		
Equities	\$286,655,683	\$398,144,686
Fixed income	447,238,352	257,114,495
Limited partnership interests	57,001,848	51,170,912
Other	15,400,105	7,058,842
	<u>806,295,988</u>	<u>713,488,935</u>
Cash	458,103	1,431,717
Other receivables	3,747	4,125
Program-related investments (net of allowance for possible losses of \$384,411 in 1987 and \$408,445 in 1986) — note 2	384,411	408,445
Total assets	<u>\$807,142,249</u>	<u>\$715,333,222</u>
Liabilities and fund balances		
Liabilities		
Unpaid appropriations	\$ 27,382,890	\$ 22,309,332
Federal excise tax payable — note 3		
Current	1,615,802	1,302,118
Deferred	1,702,122	2,302,613
Checks outstanding in excess of bank balances	865,253	—
Total liabilities	<u>31,566,067</u>	<u>25,914,063</u>
Fund balances		
Income	—	—
Principal	775,576,182	689,419,159
Total fund balances	<u>775,576,182</u>	<u>689,419,159</u>
Total liabilities and fund balances	<u>\$807,142,249</u>	<u>\$715,333,222</u>

See accompanying notes to financial statements.

Statements of changes in fund balances
for the years ended September 30, 1987 and 1986

Income fund	1987	1986
Income		
Investment income	\$39,504,470	\$36,645,585
Less investment expenditures	<u>2,251,488</u>	<u>2,161,074</u>
Net investment income	37,252,982	34,484,511
Other	<u>19,842</u>	<u>20,580</u>
Total income	<u>37,272,824</u>	<u>34,505,091</u>
Expenditures		
Provision for federal excise tax — note 3	389,417	364,636
General administration, program management, and direct charitable activities — notes 4 & 5	5,145,828	4,692,263
Grant appropriations (net of refunds and cancellations of \$59,132 in 1987 and \$339,855 in 1986)	37,039,846	26,628,638
Appropriations for projects administered by the officers (net of refunds and cancellations of \$201,010 in 1986)	2,417,610	2,057,143
Provision for losses and write-offs of program-related investments — note 2	<u>60,966</u>	<u>74,631</u>
Total expenditures	<u>45,053,667</u>	<u>33,817,311</u>
Excess of income over expenditures	(7,780,843)	687,780
Transfer from (to) principal fund	<u>\$ 7,780,843</u>	<u>\$ (687,780)</u>

See accompanying notes to financial statements.

Statements of changes in fund balances
for the years ended September 30, 1987 and 1986

Principal fund	1987	1986
Expendable:		
Balance at beginning of year	\$554,082,291	\$407,044,417
Additions and deductions		
Net gain on investment transactions	123,371,457	96,180,625
Net realized gain on recovery of reversionary interests	3,155	2,845
Less applicable federal excise tax— note 3	(1,202,197)	(961,835)
Unrealized appreciation (depreciation) of investments net of deferred federal excise tax (credit) of (\$576,215) in 1987 and \$1,043,438 in 1986— note 3	(28,234,549)	51,128,459
Transferred from (to) income fund	(7,780,843)	687,780
Total expendable, end of year— note 1	<u>640,239,314</u>	<u>554,082,291</u>
Nonexpendable (balance at beginning and end of year):		
Endowment	125,000,000	125,000,000
Legacy	<u>10,336,868</u>	<u>10,336,868</u>
Total nonexpendable— note 1	<u>135,336,868</u>	<u>135,336,868</u>
Total principal fund balance	<u>\$775,576,182</u>	<u>\$689,419,159</u>

See accompanying notes to financial statements.

Notes to financial statements

September 30, 1987 and 1986

(1) Summary of significant accounting policies:

The accompanying financial statements have been prepared substantially on the accrual basis of accounting and accordingly reflect all significant receivables and payables. However, investment income is recorded on a cash-collected basis, and purchases of furniture and office equipment, including computers, are not capitalized but are charged against income in the year acquired. These two exceptions to the accrual basis of accounting have no material effect on financial position or changes in fund balances.

The resources of the Corporation are accounted for in two funds — income and principal. The principal fund consists of nonexpendable and expendable resources. Nonexpendable resources represent the original sums received from Andrew Carnegie who, by the terms of the conveying instrument, stipulated that the principal may never be expended. Expendable resources represent net gains on investment transactions and reversionary interests which are available to support activities in accordance with the provisions of the New York State Not-for-Profit Corporation Law.

(2) Program-related investments:

The Corporation has made investments in loans to nonprofit organizations, the purpose of such investments being to accomplish one or more of the purposes for which the foundation is organized and operated.

Due to the risk involved in these investments, the Corporation estimates the collectability of these amounts to be approximately 50 percent of the remaining loan amount and has therefore set aside an allowance of 50 percent of the unpaid principal balance.

(3) Federal excise tax payable:

The Corporation is liable for federal taxes of 2 percent of the net investment income, as defined, which includes realized capital gains for the year. However, this tax is reduced to 1 percent if certain conditions are met. Therefore, current taxes for the years ended September 30, 1987 and 1986 are estimated at 1 percent of net investment income.

Deferred taxes represent 2 percent of unrealized appreciation on investments for the years ended September 30, 1987 and 1986, as qualification for the 1 percent tax is not determinable until the fiscal year in which gains are realized.

Tax expense is allocated to the Income Fund based on the tax percentage for net investment income excluding realized gains and to the principal fund for the tax percentage of net realized and unrealized gains.

(4) Retirement plans:

The Corporation purchases annuities for qualifying employees under the terms of a noncontributory, defined contribution retirement plan with the Teachers Insurance and Annuity Association and College Retirement Equities Fund. Retirement plan expenses for the years ended September 30, 1987 and 1986, were \$376,164 and \$361,519, respectively.

In addition, the Corporation has established a noncontributory annuity plan to supplement the basic plan described above. This plan is also administered by the Teachers Insurance and Annuity Association and College Retirement Equities Fund. The contri-

bution in the fiscal year ended September 30, 1987, to this plan for the plan year beginning January 1, 1986, was \$67,721. It is expected that a similar contribution for the plan year beginning January 1, 1987, will be made.

(5) Lease:

The Corporation leases office space under a 20-year lease expiring March 31, 1988. The basic annual rental is \$136,013 and is subject to escalation provisions for maintenance and taxes. Rental expense for this office space for 1987 and 1986 was \$394,604 and \$449,739, respectively.

Summary of investments held and income from investments*
for the year ended September 30, 1987

	Tax basis**	Market value	Excess (deficiency) of market value over tax basis	Income
Equities				
Common stocks	\$192,205,439	\$279,158,266	\$86,952,827	\$ 8,712,591
Convertible securities	7,062,406	7,497,417	435,011	390,010
Fixed income securities				
Short term	111,949,494	112,922,404	972,910	6,698,029
Intermediate and long term	342,282,584	334,315,948	(7,966,636)	16,977,432
Limited partnership interests	51,348,278	57,001,848	5,653,570	6,519,818
Other	15,400,105	15,400,105	—	206,590
	<u>\$720,248,306</u>	<u>\$806,295,988</u>	<u>\$86,047,682</u>	<u>\$39,504,470</u>

*A complete listing of securities is available upon written request.

**Tax basis is cost, except for limited partnership investments, which are carried at equity.

Schedule of appropriations and payments

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Academy for Educational Development 680 Fifth Avenue New York, New York 10019 <i>National Adolescent Pregnancy Prevention Program — \$600,000 (1986)</i>		\$300,000	\$200,000	\$100,000
ACCESS: A Security Information Service 1755 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Security information service</i>	\$100,000		100,000	
African-American Institute 833 United Nations Plaza New York, New York 10017 <i>Program on Policy Issues in African-American Relations — \$635,000 (1985)</i>		211,800	211,800	
<i>Integration of women in development issues into the Program on Policy Issues in African-American Relations — \$100,000 (1986)</i>		100,000	100,000	
African Medical and Research Foundation P.O. Box 30125, Wilson Airport Nairobi, Kenya <i>Operational Research and Evaluation Unit — \$443,000 (1984)</i>		91,900	91,900	
<i>Research and meetings on nonformal health education in eastern and southern Africa — \$416,500 (1986)</i>		289,300	142,000	147,300
African Research and Communications 818 18th Street, N.W. Washington, D.C. 20006 <i>Research and public education on South African history, culture, and educational policy</i>	25,000		25,000	
Africare 1601 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>Maternal health and child survival program in Imo State, Nigeria</i>	190,900		135,108	55,792
Alexandra Health Centre and University Clinic P.O. Box 175 2012 Bergvlei, Republic of South Africa <i>Model program of maternal and child health services in urban South Africa</i>	65,000		33,000	32,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
American Academy of Arts and Sciences 136 Irving Street Cambridge, Massachusetts 02138 <i>Research on the processes of international negotiations—\$400,000 (1986)</i>		150,000	150,000	
<i>Study of anti-tactical ballistic missile defenses and western security</i>	50,000		50,000	
American Association for Higher Education One Dupont Circle Washington, D.C. 20036 <i>Meeting for college and university presidents on the teaching profession</i>	25,000		25,000	
American Association for the Advancement of Science 1333 H Street, N.W. Washington, D.C. 20005 <i>Assessment and reformulation of the content of precollegiate education in science, mathematics, and technology—\$923,200 (1985)</i>		232,200	232,200	
<i>Project to improve science and mathematics education for minority, female, and disabled youth—\$700,000 (1985)</i>		349,000	234,000	115,000
<i>Program in Science, Arms Control, and National Security</i>	350,000		175,000	175,000
<i>Project on the place of science and technology in undergraduate education</i>	570,000		324,000	246,000
American Citizenship Education Project 1000 Wisconsin Avenue, N.W. Washington, D.C. 20007 <i>National media campaign on voter education and registration</i>	150,000		150,000	
American Civil Liberties Union Foundation 132 West 43rd Street New York, New York 10036 <i>Voting Rights Project—\$200,000 (1986)</i>		100,000	100,000	
<i>Center for National Security Studies Project on Government Secrecy</i>	150,000		75,000	75,000
American College of Obstetricians and Gynecologists 600 Maryland Avenue, S.W. Washington, D.C. 20024-2588 <i>Exploratory meeting on the training of African obstetricians</i>	23,000		23,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
American Committee on U.S.-Soviet Relations 109 Eleventh Street, S.E. Washington, D.C. 20003 <i>Periodic assessments of the state of U.S.-Soviet relations</i>	150,000		50,000	100,000
American Council of Learned Societies 228 East 45th Street New York, New York 10017 <i>Fellowships for recent Ph.D. recipients — \$500,000 (1982)</i>	345,000	100,000	100,000	345,000
American Council on Education One Dupont Circle Washington, D.C. 20006 <i>Conference on college retirement</i>	25,000		25,000	
American Library Association 50 East Hudson Street Chicago, Illinois 60611 <i>Program to encourage educational videocassette use in public libraries</i>	560,000		518,000	42,000
American Public Welfare Association 1125 15th Street, N.W. Washington, D.C. 20005 <i>Planning a program of technical assistance to state governments on adolescent pregnancy policies and services</i>	25,000		25,000	
American Red Cross 17th and D Streets, N.W. Washington, D.C. 20006 <i>Project to improve blood transfusion services in Uganda</i>	25,000		25,000	
American Society of Zoologists P.O. Box 2739 Thousand Oaks, California 91360 <i>Symposium series on education in biology — \$121,600 (1985)</i>		43,173	43,173	
Appropriate Health Resources and Technologies Action Group 10 Marylebone High Street London W1M 3DE, United Kingdom <i>Publication and distribution of an issue of a newsletter for health personnel on the role of women in controlling diarrheal diseases among children in developing countries</i>	25,000			25,000
Arms Control Association 11 Dupont Circle Washington, D.C. 20036 <i>Program on arms control and national security for the Washington press corps</i>	150,000		50,000	100,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Aspen Institute for Humanistic Studies 717 Fifth Avenue New York, New York 10022 <i>Aspen Strategy Group — \$200,000 (1985)</i>		100,000	100,000	
<i>Inter-American Dialogue — \$250,000 (1986)</i>		166,640	83,320	83,320
<i>Meetings on U.S.-Soviet relations for American lawmakers — \$310,000 (1986)</i>	300,000	28,900	28,900	
			300,000	
Association of American Colleges 1818 R Street, N.W. Washington, D.C. 20009 <i>Program to promote undergraduate courses on philanthropy</i>	25,000		25,000	
Association of Commonwealth Universities 36 Gordon Square London WC1H 0PF, United Kingdom <i>Participation by African and Caribbean representatives in the 14th Commonwealth Universities Congress</i>	25,000		25,000	
Association of Science-Technology Centers 1413 K Street, N.W. Washington, D.C. 20005-3405 <i>Assistance to science museums in serving girls, minorities, and disabled students</i>	433,700		70,200	363,500
Avance-San Antonio 1226 N.W. 18th Street San Antonio, Texas 78207 <i>Evaluation of the Parent Education Program</i>	400,000		110,000	290,000
Bank Street College of Education 610 West 112th Street New York, New York 10025 <i>Study of public school involvement in programs for young children — \$297,000 (1985)</i>		119,000	119,000	
<i>Participation in a U.S.-Soviet project on the application of computers in the early elementary school grades</i>	18,000		18,000	
Black Lawyers' Association Legal Education Centre P. O. Box 61246 2107 Marshalltown, Republic of South Africa <i>Support — \$75,000 (1983)</i>		25,000	25,000	
Breznitz, Shlomo 343 Congressional Lane Rockville, Maryland 20852 <i>Writing on education for a changing world — \$25,000 (1985)</i>		3,000		3,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Brookings Institution 1775 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Research on international security issues as affected by U.S.-Soviet relations — \$750,000 (1985)</i>		250,000	250,000	
Brown University Providence, Rhode Island 02912 <i>Coalition of Essential Schools — \$400,000 (1984)</i>		60,000	60,000	
<i>Study of public attitudes and knowledge about nuclear arms policy and U.S.-Soviet relations in collaboration with the Public Agenda Foundation — \$350,000 (1986)</i>		175,000	175,000	
Bryn Mawr College Bryn Mawr, Pennsylvania 19010 <i>Program of graduate training in anthropology for Kenyan students</i>	25,000		25,000	
California State University, Dominguez Hills Carson, California 90747 <i>Model program to increase the numbers of minority mathematics and science teachers</i>	270,000		120,000	150,000
California, University of, Berkeley Berkeley, California 94720 <i>Pilot Mathematics, Engineering, and Science Achievement Program at the junior high school level — \$603,750 (1984)</i>		100,625	100,625	
<i>Writing on higher education, industrial relations, and social change by Clark Kerr — \$145,500 (1984)</i>		35,476	16,573	18,903
<i>Research on Soviet foreign policy and behavior in selected regions — \$599,675 (1985)</i>		323,840	213,498	110,342
<i>Science literacy materials and training project — \$295,000 (1985)</i>		73,750	73,750	
<i>Research on education and the economy</i>	244,000		244,000	
California, University of, Irvine Irvine, California 92717 <i>Model program to increase the numbers of minority mathematics and science teachers</i>	315,000		155,000	160,000
California, University of, Los Angeles Los Angeles, California 90024 <i>Development and dissemination of training materials on the teaching of science to Hispanic and native American students</i>	24,670		24,670	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Follow-up study of the school performance of children raised in alternative family lifestyles</i>	25,000		25,000	
<i>Monograph on the political consequences of Adolf Hitler's pathological personality</i>	25,000		25,000	
California, University of, San Diego La Jolla, California 92093				
<i>Participation in a U.S.-Soviet project on the application of computers in the early elementary school grades</i>	18,000		18,000	
<i>Planning an international project on the application of computers in the early elementary school grades</i>	6,500		6,500	
<i>Workshop on an international project on the application of computers in the early elementary school grades</i>	5,500		5,500	
California, University of, San Francisco San Francisco, California 94143				
<i>Evaluation of comprehensive school-based health clinics in the Bay Area—\$200,000 (1986)</i>		150,020	73,154	76,866
Cape Town, University of University Private Bag 7700 Rondebosch, Republic of South Africa				
<i>Centre for Documentary Photography</i>	72,000		40,000	32,000
<i>Research on programs promoting healthy adolescent development</i>	6,000		6,000	
Carnegie Dunfermline Trust Abbey Park House, Dunfermline Fife KY12 7PB, United Kingdom				
<i>Maintenance of the Andrew Carnegie Birthplace Memorial</i>	25,000		5,000	20,000
Carnegie Endowment for International Peace 11 Dupont Circle Washington, DC 20036				
<i>Preparation and publication of an annual report on nuclear proliferation—\$200,000 (1986)</i>		111,500	111,500	
<i>Research on verification and compliance in arms control agreements—\$205,000 (1986)</i>		105,450	105,450	
Carnegie Institution of Washington 1530 P Street, N.W. Washington, D.C. 20005				
<i>Postdoctoral fellowships in the natural sciences</i>	125,000		125,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Carnegie-Mellon University Pittsburgh, Pennsylvania 15213 <i>Development and demonstration of a computer-based geometry tutor — \$552,000 (1985)</i>		144,310	144,310	
<i>Workshops for university faculty on software for advanced-function workstations — \$194,000 (1986)</i>		66,000	66,000	
Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305 <i>Study of organizational factors in the prevention of nuclear war</i>	100,000		100,000	
Center for Education on Nuclear War 122 Maryland Avenue, N.E. Washington, D.C. 20002 <i>Study group on United States policy on the use of nuclear weapons — \$97,700 (1986)</i>		52,500	52,500	
Center for Population Options 1012 14th Street, N.W. Washington, D.C. 20005 <i>Services to school-based health clinics — \$150,000 (1986)</i>		75,000	75,000	
<i>Projects concerned with the electronic media and adolescent sexuality</i>	250,000		125,000	125,000
Center for Responsive Politics 2001 O Street, N.W. Washington, D.C. 20036 <i>Project on the role of political action committees in congressional campaign finance</i>	25,000		25,000	
Center for Strategic and International Studies 1800 K Street, N.W., Suite 400 Washington, D.C. 20006 <i>Conference on the management of international crises</i>	25,000		25,000	
Centre for African Family Studies Mlima House, Upper Hill Road Nairobi, Kenya <i>Workshop on adolescent fertility in sub-Saharan Africa — \$25,000 (1986)</i>		25,000	25,000	
Chicago Theological Seminary 5757 South University Avenue Chicago, Illinois 60637 <i>Field education project on black church programs for children and families — \$331,500 (1985)</i>		165,750	110,500	55,250

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Chicago, University of Chicago, Illinois 60637 <i>Development of an integrated secondary school mathematics curriculum — \$1,000,000 (1986)</i>		666,666	333,333	333,333
<i>Research on factors influencing family structure in the inner city — \$300,000 (1986)</i>		200,000	100,000	100,000
Child Care, Inc. 275 Seventh Avenue New York, New York 10001 <i>Development of model family day care networks in New York City — \$260,000 (1986)</i>		130,000	65,000	65,000
Childhope Foundation P. O. Box 20423, Dag Hammarskjold Center New York, New York 10017 <i>Study of community-based educational programs for street children</i>	10,000		10,000	
Children's Defense Fund 122 C Street, N.W. Washington, D.C. 20001 <i>Support — \$1,000,000 (1985)</i>		300,000	300,000	
<i>Media campaign to help prevent adolescent pregnancy</i>	400,000		200,000	200,000
Children's Television Workshop One Lincoln Plaza New York, New York 10023 <i>Planning a television series on reading and writing for six-to-nine-year-old children</i>	250,000		250,000	
Churchill School 22 East 95th Street New York, New York 10128 <i>Development of a sexuality education curriculum for learning disabled adolescents</i>	25,000		25,000	
Citizens Network for Foreign Affairs 1616 H Street, N.W. Washington, D.C. 20006 <i>Support</i>	25,000		25,000	
Claremont University Center and Graduate School Claremont, California 91711 <i>Tomás Rivera Center for Chicano Policy Studies — \$698,000 (1986)</i>		367,000	367,000	
Cleveland Education Fund 1400 Hanna Building Cleveland, Ohio 44115 <i>Model program to improve science education in the Cleveland Public Schools</i>	150,000		50,000	100,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Columbia University New York, New York 10027 <i>Development of model comprehensive health and educational services in junior high schools — \$330,000 (1985)</i>		165,000	110,000	55,000
<i>Research and training on Soviet international security and arms control issues — \$1,500,000 (1985)</i>		500,000		500,000
<i>Research and public education in the Caribbean and sub-Saharan Africa about laws and policies affecting the education and health of women and girls — \$250,000 (1986)</i>		147,700	86,700	61,000
<i>Dissemination of research findings on Hispanic adolescent childbearing</i>	25,000		25,000	
<i>National resource center to promote health and development programs for children in poverty</i>	300,000		150,000	150,000
<i>Research and training on maternal health in sub-Saharan Africa</i>	996,900		358,555	638,345
<i>Research and writing on the political psychology of U.S.-Soviet relations</i>	25,000		25,000	
Commission on College Retirement 237 Park Avenue New York, New York 10017 <i>Support</i>	252,500		252,500	
Committee for Economic Development 477 Madison Avenue New York, New York 10022 <i>Preparation of a report on strategies for investing in the education of disadvantaged children</i>	50,000		50,000	
Committee for National Security 1601 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>Series of study guides on the Soviet Union and U.S.-Soviet relations</i>	100,000		50,000	50,000
Congress of National Black Churches 1919 Pennsylvania Avenue, N.W. Washington, D.C. 20006 <i>Church-based educational programs for children and families — \$668,000 (1986)</i>		399,600	399,600	
Consortium for the Advancement of Private Higher Education 1606 New Hampshire Avenue, N.W. Washington, D.C. 20009 <i>Support — \$1,528,500 (1984)</i>	550,000	154,750	154,750 275,000	275,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Coordination in Development 475 Riverside Drive New York, New York 10115 <i>Comparative evaluation of three international development education programs</i>	25,000		25,000	
Cornell University Ithaca, New York 14853 <i>Research and writing on the management of international crises—\$265,000 (1985)</i>	91,000	75,000	75,000 40,000	51,000
Council of Chief State School Officers 400 North Capitol Street, N.W. Washington, D.C. 20001 <i>Assistance to educators in meeting the needs of at-risk children and youth</i>	80,000		80,000	
<i>Assistance to state education departments in improving the education of language-minority students</i>	400,000		165,773	234,227
Council of State Governments P.O. Box 11910, Iron Works Pike Lexington, Kentucky 40576 <i>Adolescent pregnancy prevention activities of the Southern Governors' Association</i>	88,500		44,250	44,250
Council on Foreign Relations 58 East 68th Street New York, New York 10021 <i>Study on U.S.-Soviet relations in the next decade</i>	150,000		75,000	75,000
Council on Foundations 1828 L Street, N.W. Washington, D.C. 20036 <i>1987 membership support</i>	24,700		24,700	
Council on Library Resources 1785 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Program of education and management training in the research library field—\$450,000 (1981)</i>		80,000		80,000
Defense for Children International-USA 534 8th Street Brooklyn, New York 11215 <i>Public education in the United States on children's rights throughout the Third World—\$10,000 (1986)</i>		6,000	3,000	3,000
Defense Forecasts 1742 Swann Street, N.W. Washington, D.C. 20009 <i>Research and writing on the politics of nuclear strategy</i>	100,000		30,000	70,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Development Group for Alternative Policies 1010 Vermont Avenue, N.W. Washington, D.C. 20005 <i>Symposium on U.S. development assistance policy in the eastern Caribbean</i>	21,900		21,900	
Dryfoos, Joy 20 Circle Drive Hastings-on-Hudson, New York 10706 <i>Research and writing on adolescents at risk — \$96,600 (1986)</i>		48,300	48,300	
Duke University Durham, North Carolina 27706 <i>Study of economic sanctions as a component of foreign policy</i>	24,450		24,450	
Eastern Cape Legal Information and Support Services 8 Don Kin Street 6140 Grahamstown, Republic of South Africa <i>Legal advice and education program in rural South Africa — \$50,000 (1986)</i>		50,000		50,000
Education Commission of the States 1860 Lincoln Street Denver, Colorado 80295 <i>Assistance to states in developing policies for at-risk youth</i>	354,000		265,000	89,000
<i>Planning for a national program to coordinate education, health promotion, and ethics training for young people</i>	24,900		24,900	
<i>Planning for a national program to coordinate education, health promotion, and ethics training for young people</i>	25,000		25,000	
Education, Training, and Research Associates 1700 Mission Street Santa Cruz, California 95061 <i>Development of family life education materials for Hispanic students</i>	173,900		43,138	130,762
Educational Broadcasting Corporation 356 West 58th Street New York, New York 10019 <i>Development of a television series on U.S.-Soviet relations — \$250,000 (1986)</i>		175,000		175,000
<i>Production of a television series on U.S.-Soviet relations</i>	250,000			250,000
Educational Opportunities Council P.O. Box 3323 2000 Johannesburg, Republic of South Africa <i>Support</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Educational Testing Service Princeton, New Jersey 08540 <i>Scoring computer competence items from the 1986 National Assessment of Educational Progress</i>	25,000		25,000	
Erikson Institute 25 West Chicago Avenue Chicago, Illinois 60610 <i>Development of a training and certification program for community child safety specialists</i>	310,000		75,000	235,000
Facing History and Ourselves National Foundation 25 Kennard Road Brookline, Massachusetts 02146 <i>Development and dissemination of a school curriculum on voluntarism and the nonprofit sector</i>	25,000		25,000	
Family Care International 902 Broadway New York, New York 10019 <i>Participation by representatives of Commonwealth African countries in a conference on means of reducing health risks of childbearing</i>	25,000		25,000	
First Nations Financial Project Route 14, Box 74 Falmouth, Virginia 22405 <i>Master's program in public and private management for native Americans — \$264,250 (1985)</i>		132,625	132,625	
First Parish in Cambridge 3 Church Street, Harvard Square Cambridge, Massachusetts 02138 <i>Series of radio broadcasts by Cambridge Forum on avoiding nuclear war</i>	75,000		25,000	50,000
Florida, University of Gainesville, Florida 32611 <i>Development and evaluation of a videodisc system for elementary science curricula</i>	25,000		25,000	
Foundation Center 79 Fifth Avenue New York, New York 10003 <i>Distribution of a documentary film on foundations in the United States</i>	25,000		25,000	
<i>New programs and services</i>	750,000		750,000	
Foundation for Excellence in Teaching 2551 North Clark Street Chicago, Illinois 60614 <i>Conference on recruitment, retention, and renewal of teachers</i>	24,700		24,700	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Fund for Peace 345 East 46th Street New York, New York 10017 <i>National Security Archive</i>	300,000		300,000	
<i>U.S.-Soviet conference on film portrayals of the two countries</i>	25,000		25,000	
Fundación Educativa Ana G. Méndez Apartado E Río Piedras, Puerto Rico 00928 <i>Pilot precollege program in mathematics and science in Puerto Rico—\$335,000 (1986)</i>		163,810	163,810	
Fundación Mexicana para la Salud 20 Piso San Jeronimo Lidice Avenida Contraria, 1200 Mexico <i>Research in maternal and child health and strengthening of health resources in Mexico</i>	575,000			575,000
George Washington University Washington, D.C. 20052 <i>Series of policy seminars on child health and development issues—\$233,450 (1986)</i>		175,950	116,725	59,225
Georgetown University Washington, D.C. 20006 <i>Study of the roles of the military in Soviet politics, economy, and society—\$118,750 (1986)</i>		59,375	59,375	
<i>Study of scientific and technical education and personnel in the Soviet Union</i>	100,000			100,000
Girls Clubs of America 205 Lexington Avenue New York, New York 10016 <i>Development and evaluation of four models for pregnancy prevention among adolescents—\$225,000 (1985)</i>		75,000	75,000	
<i>Model science and mathematics program for young adolescent girls in low-income communities</i>	211,000		102,000	109,000
Global Outlook Education Institute 300 Hamilton Avenue Palo Alto, California 94301 <i>Dissemination of the results of a study on arms control compliance</i>	25,000		25,000	
Global Perspectives in Education 45 John Street New York, New York 10038 <i>Workshop on international development education</i>	25,000		25,000	

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Hall of Science of the City of New York 47-81 111th Street Corona, New York 11368 <i>Model educational program for public school science teachers</i>	180,000		130,000	50,000
Harvard University Cambridge, Massachusetts 02138 <i>Institute for the Study of Smoking Behavior and Policy — \$658,200 (1984)</i>		100,000	100,000	
<i>Studies of the development, evaluation, and effectiveness of family support programs — \$180,000 (1985)</i>		49,000	49,000	
<i>Research and education on the avoidance of nuclear war — \$1,170,000 (1986)</i>		585,000	585,000	
<i>Research and training at the Harvard Negotiation Project on improving the U.S.-Soviet negotiation process — \$262,000 (1986)</i>		131,000	131,000	
<i>Childhood Injury Prevention Resource Center</i>	390,300		196,550	193,750
<i>Conference on the 1962 Cuban missile crisis</i>	25,000		25,000	
<i>Development of a long-term care insurance program</i>	225,000		225,000	
<i>Panel on the future use of technology in education</i>	25,000		25,000	
<i>Planning for the Science, Technology, and Public Policy Program</i>	25,000		25,000	
<i>Study of policy formulation and implementation in Nigerian higher education from 1960 to the present</i>	86,200		42,900	43,300
<i>Study of programs concerning behavior-related problems of school children</i>	25,000		25,000	
<i>Visiting professorship in health research for developing countries at the School of Public Health</i>	25,000		25,000	
<i>Visiting scholar in poverty and development in southern Africa at the Center for Health and Human Resources Policy</i>	25,000		25,000	
High/Scope Educational Research Foundation 600 North River Street Ypsilanti, Michigan 48197 <i>Consultative Group on Early Childhood Care and Development — \$10,000 (1986)</i>		5,000		5,000
<i>Research, policy studies, and dissemination of information on early childhood education</i>	460,500		148,034	312,466

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Hispanic Policy Development Project 250 Park Avenue South New York, New York 10003 <i>Program to develop strategies to reduce the school dropout rate of Hispanic students</i>	120,000		120,000	
Hunter College New York, New York 10036 <i>Participation in a U.S.-Soviet project on the application of computers in the early elementary school grades</i>	18,000		18,000	
Illinois Caucus on Teenage Pregnancy 100 West Randolph Street Chicago, Illinois 60601 <i>Statewide program of pregnancy prevention among middle school students — \$70,000 (1986)</i>		70,000	35,000	35,000
Independent Broadcasting Associates 111 King Street Littleton, Massachusetts 01460 <i>Production of a radio series and accompanying educational materials on hunger, poverty, and development</i>	25,000		25,000	
Independent Sector 1828 L Street, N.W. Washington, D.C. 20036 <i>1987 membership support</i>	7,400		7,400	
Institute for East-West Security Studies 304 East 45th Street New York, New York 10017 <i>U.S.-Soviet Relations Program — \$300,000 (1985)</i> <i>Study group on strategic stability</i>	20,000	82,420	62,920	19,500
Institute of International Education 809 United Nations Plaza New York, New York 10017 <i>Career development fellowship program for black South Africans in U.S. universities</i>	200,000		100,000	100,000
<i>Clearinghouse on U.S. programs in education for black South Africans</i>	250,000		200,000	50,000
<i>Planning a career development fellowship program for nondegree study of black South Africans at U.S. universities</i>	25,000		25,000	
InterAction: American Council for Voluntary International Action 200 Park Avenue South New York, New York 10003 <i>Dissemination of a report on a survey of U.S. public opinion about international development</i>	60,000		60,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Meetings and publications on nongovernmental development and relief programs in southern Africa</i>	25,000		25,000	
Inter-American Parliamentary Group on Population and Development 902 Broadway, Tenth Floor New York, New York 10010 <i>Program in the Caribbean to increase awareness of the problems of adolescent pregnancy</i>	23,250		23,250	
International Center for Research on Women 1717 Massachusetts Avenue, N.W. Washington, D.C. 20036 <i>Research on women's work and child welfare in developing countries — \$160,000 (1985)</i>		29,900	29,900	
International Council of Scientific Unions 1503 Pennsylvania Avenue, N.W. Washington, D.C. 20013 <i>Project on the environmental consequences of nuclear war</i>	50,000		25,000	25,000
International Health and Biomedicine The Manor House, Alfriston East Sussex BN265, United Kingdom <i>Development of public education materials on vaccination and child survival in developing countries — \$75,000 (1985)</i>		20,000	20,000	
<i>Research for books and television programs on science and technology in developing countries — \$353,650 (1986)</i>		353,650	115,388	238,262
International Research & Exchanges Board 126 Alexander Street Princeton, New Jersey 08540 <i>Facilitation of meetings involving U.S. and Soviet scholars and policy experts — \$400,000 (1986)</i>		225,000	175,000	50,000
<i>Planning a U.S.-Soviet project on the application of computers in the elementary school grades</i>	24,900		24,900	
International Student Pugwash 505-B 2nd Street, N.E. Washington, D.C. 20002 <i>Student programs on science and technology in society</i>	100,000		50,000	50,000
Janis, Irving L. 627 Scotland Drive Santa Rosa, California 95405 <i>Research and writing on the management of international crises — \$135,000 (1985)</i>	91,550	49,992	49,992 34,417	57,133

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Johns Hopkins University Baltimore, Maryland 21218 <i>Conferences of American legislators with British parliamentarians and African leaders — \$106,600 (1971)</i>		7,956		7,956
<i>Development of a handbook for state and local policymakers on the prevention of childhood injury</i>	300,000		110,000	190,000
Joint Center for Political Studies 1301 Pennsylvania Avenue, N.W. Washington, D.C. 20004 <i>Policy research on the black family</i>	500,000		169,500	330,500
Lawyers' Committee for Civil Rights Under Law 1400 Eye Street, N.W. Washington, D.C. 20005 <i>Meeting on children in detention in South Africa</i>	25,000		25,000	
League of Women Voters Education Fund 1730 M Street, N.W. Washington D.C. 20036 <i>Public education on national security issues</i>	125,000		125,000	
Legal Resources Trust P. O. Box 9495 2000 Johannesburg, Republic of South Africa <i>Educational activities of the Port Elizabeth Legal Resources Centre — \$100,000 (1986)</i>		50,000	50,000	
Levine, Robert A. 10321 Chrysanthemum Lane Los Angeles, California 90077 <i>Research and writing on American and European views about military policy — \$25,000 (1986)</i>		16,500	16,500	
Los Angeles Educational Partnership 1052 West 6th Street Los Angeles, California 90017 <i>Model program to improve science education in the Los Angeles public schools</i>	151,400		50,510	100,890
Marine Biological Laboratory Woods Hole, Massachusetts 02543 <i>Fellowship program for science writers — \$55,140 (1986)</i>		30,240	30,240	
Massachusetts Advocacy Center 76 Summer Street Boston, Massachusetts 02110 <i>Multicultural educational training and advocacy project — \$240,000 (1985)</i>		60,000	60,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Research and advocacy concerning Boston middle schools' absentee and dropout rates — \$143,000 (1986)</i>		71,500	71,500	
Massachusetts Institute of Technology Cambridge, Massachusetts 02139 <i>Arms Control and Defense Policy — \$1,100,000 (1984)</i>		162,000		162,000
<i>Planning a national program to increase the education of minorities</i>	1,182,000		30,000	1,152,000
<i>Project on the social and political implications of science and technology in the Soviet Union</i>	25,000		10,000	15,000
<i>Seminar on foreign politics and the national interest for national security policymakers</i>	25,000		25,000	
Massachusetts, University of, Boston Boston, Massachusetts 02116 <i>Participation in a U.S.-Soviet project on the application of computers in the early elementary school grades</i>	17,750		17,750	
Meharry Medical College 1005 D.B. Todd Boulevard Nashville, Tennessee 37208 <i>Community-based pregnancy prevention program for adolescents</i>	750,000		350,000	400,000
MELD 123 North 3rd Street Minneapolis, Minnesota 55401 <i>Development of parent education and support programs for young low-income Hispanic parents in California</i>	521,000		184,100	336,900
Melmed, Arthur S. 4727 30th Street, N.W. Washington, D.C. 20008 <i>Writing on improving education through the application of cognitive science and information technology — \$16,530 (1986)</i>		6,530		6,530
Mental Health Law Project 2021 L Street, N.W. Washington, D.C. 20036 <i>Advocacy on behalf of preschool developmentally disabled children — \$230,000 (1986)</i>		170,000	120,000	50,000
Mexican American Legal Defense and Educational Fund 634 South Spring Street Los Angeles, California 90014 <i>Program of education litigation and advocacy</i>	750,000		250,000	500,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Michigan, University of Ann Arbor, Michigan 48109 <i>Aging Society Policy Studies Center</i>	24,900		24,900	
<i>Research and writing on alternative approaches to the study of international conflict and cooperation</i>	320,000		110,000	210,000
Minnesota, University of Minneapolis, Minnesota 55455 <i>Research and public education in the Caribbean and sub-Saharan Africa about laws and policies affecting the education and health of women and girls—\$252,000 (1986)</i>		145,500	71,600	73,900
Mount Holyoke College South Hadley, Massachusetts 01075 <i>Planning for an international conference on education for women</i>	25,000		25,000	
NAACP Legal Defense and Educational Fund 99 Hudson Street New York, New York 10013 <i>Education litigation program</i>	555,000		92,500	462,500
NAACP Special Contribution Fund 4805 Mt. Hope Drive Baltimore, Maryland 21215 <i>Program of education litigation and advocacy</i>	696,000		232,000	464,000
Nairobi, University of Nairobi, Kenya <i>Bureau of Educational Research—\$383,000 (1976)</i>		6,093	6,093 ^a	
National Academy of Sciences 2101 Constitution Avenue, N.W. Washington, D.C. 20418 <i>Studies of important national issues—\$300,000 (1985)</i>		200,000	100,000	100,000
<i>Study of the status of black Americans—\$250,000 (1985)</i>	150,000	50,000	50,000	150,000
<i>Committee on the Contributions of Behavioral and Social Sciences to the Prevention of Nuclear War</i>	421,000		211,000	210,000
<i>Conference on teacher education in mathematics</i>	5,685		5,685	
<i>Dissemination of a monograph on the teaching of higher-order skills</i>	25,000		25,000	
<i>National Forum on the Future of Children and Their Families</i>	536,000		268,000	268,000
<i>Planning exchanges on health issues between the Institute of Medicine and the Soviet Academy of Medical Sciences</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Symposium on the role of science and technology in development</i>	25,000		25,000	
National Academy of Social Insurance 505 Capitol Court, N.E. Washington, D.C. 20002 <i>Support</i>	200,000		100,000	100,000
National Association for Bilingual Education 1201 16th Street, N.W. Washington, D.C. 20036 <i>Support — \$150,000 (1986)</i>		125,000	50,000	75,000
National Association for the Education of Young Children 1834 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>Child Care Information Services — \$690,000 (1984)</i>		80,000	80,000	
National Association for Equal Opportunity in Higher Education 2243 Wisconsin Avenue, N.W. Washington, D.C. 20007 <i>Participation by outstanding students in mathematics, science, and engineering in the 1987 White House Initiative on Historically Black Colleges and Universities Symposium</i>	25,000		25,000	
<i>Research office on black higher education — \$225,000 (1985)</i>		150,000	75,000	75,000
National Association of Latino Elected Officials Education Fund 708 G Street, S.E. Washington, D.C. 20003 <i>Conference on Latino children in poverty</i>	24,800		24,800	
National Association of Secondary School Principals 1984 Association Drive Reston, Virginia 22091 <i>Leadership training program for urban public school principals</i>	25,000		25,000	
National Association of the State Boards of Education 701 North Fairfax Street Alexandria, Virginia 22314 <i>Technical assistance to states on preschool education policies and programs — \$301,600 (1986)</i>		228,025	150,800	77,225
National Black Child Development Institute 1463 Rhode Island Avenue, N.W. Washington, D.C. 20005 <i>Support — \$225,000 (1986)</i>		150,000	100,000	50,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Board for Professional Teaching Standards 100 Tower Street, Renaissance Center Detroit, Michigan 48243 <i>Support</i>	1,000,000			1,000,000
National Center for Policy Alternatives 2000 Florida Avenue, N.W. Washington, D.C. 20009 <i>Dissemination of a study of new federal and state roles in civil rights policy in education</i>	4,000		4,000	
National Center for Science Education 23 Chelsea Drive Syosset, New York 11791 <i>Support — \$150,000 (1986)</i>		100,000	50,000	50,000
National Center for Youth Law 1663 Mission Street San Francisco, California 94103 <i>Research and technical assistance on legal aspects of adolescent health clinics</i>	203,000		101,420	101,580
National Charities Information Bureau 19 Union Square West New York, New York 10003 <i>Review of standards for evaluating charitable organizations</i>	25,000		25,000	
<i>Support</i>	15,000		10,000	5,000
National Coalition of Advocates for Students 100 Boylston Street Boston, Massachusetts 02116 <i>Support — \$210,000 (1986)</i>		100,000	100,000	
National Committee for Responsive Philanthropy 2001 S Street, N.W. Washington, D.C. 20009 <i>Support — \$70,000 (1985)</i>		10,000	10,000	
National Conference of State Legislatures 1050 17th Street Denver, Colorado 80265 <i>Information and technical assistance on early childhood education and child-care policy for state legislatures — \$295,870 (1985)</i>	492,000	79,540	79,540 240,000	252,000
National Conference on Social Welfare 1015 18th Street, N.W. Washington, D.C. 20036 <i>Dissemination of the publications of the Project on the Federal Social Role</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Congress of Parents and Teachers 700 North Rush Street Chicago, Illinois 60611 <i>Distribution of a newsletter on international comparisons in mathematics education</i>	8,225		8,225	
National Council for Research on Women 47-49 East 65th Street New York, New York 10021 <i>Support</i>	25,000		25,000	
National Council of La Raza 20 F Street, N.W. Washington, D.C. 20001 <i>Analysis of policies and programs affecting the education of Hispanic Americans — \$225,000 (1986)</i>		187,500	75,000	112,500
National Council of Returned Peace Corps Volunteers P.O. Box 65294 Washington, D.C. 20035 <i>Public education project on development assistance</i>	98,000		49,500	48,500
National Council of the Churches of Christ in the U.S.A. 475 Riverside Drive New York, New York 10115 <i>Activities to improve the quality of child care programs — \$330,000 (1985)</i>		110,000	55,000	55,000
National Executive Service Corps 622 Third Avenue New York, New York 10017 <i>Program to prepare industry and military personnel to teach mathematics and science in public schools upon retirement</i>	392,000		300,000	92,000
National Governors' Association Center for Policy Research 444 North Capitol Street Washington, D.C. 20001 <i>Assistance to states and localities in implementing the recommendations of the Carnegie Task Force on Teaching as a Profession</i>	890,000		744,700	145,300
National Public Radio 2025 M Street, N.W. Washington, D.C. 20036 <i>Coverage of Third World development — \$300,000 (1985)</i>		125,000		125,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
National Science Teachers Association 1742 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>National inter-sectoral coalition to improve science and technology education in the schools — \$250,000 (1986)</i>		135,600	67,800	67,800
National Urban Coalition 1120 G Street, N.W. Washington, D.C. 20005 <i>Development of a program for black and Hispanic parents and community groups to improve education in science, mathematics, and technology in the schools — \$453,350 (1986)</i>		238,523	238,523	
National Urban League 500 East 62nd Street New York, New York 10021 <i>Media campaign and program development to foster responsible sexual behavior among adolescent black males — \$339,400 (1986)</i>		267,075	169,700	97,375
Native American Science Education Association 10 East 87th Street New York, New York 10028 <i>Project to strengthen precollege science and mathematics instruction for native Americans — \$175,175 (1986)</i>		133,561	87,588	45,973
Natural Resources Defense Council 122 East 42nd Street New York, New York 10168 <i>U.S.-Soviet seismological research project — \$200,000 (1986)</i>	250,000	100,000	100,000 250,000	
Nebraska, University of, Omaha Omaha, Nebraska 68182 <i>Development of a traveling exhibition on Andrew Carnegie and his library gifts</i>	25,000		25,000	
Nebraskans for Public Television P.O. Box 83111 Lincoln, Nebraska 68501 <i>Production of television science programs for primary school children and for related teacher activities — \$355,000 (1986)</i>		75,000	75,000	
New York, Board of Education of the City of 110 Livingston Street Brooklyn, New York 11201 <i>School Improvement Project — \$175,000 (1980)</i>		43,750		43,750

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
New York Public Library Fifth Avenue and 42nd Street New York, New York 10018 <i>Program support — \$500,000 (1986)</i>		437,500	237,500	200,000
New York Regional Association of Grantmakers 505 Eighth Avenue New York, New York 10018 <i>1987 membership support</i>	7,125		7,125	
New York, State University of, Stony Brook Stony Brook, New York 11794 <i>Workshop on the role of faculty members in recruiting and retaining minority graduate students</i>	25,000		25,000	
New York University New York, New York 10012 <i>Research and training on news media coverage of international security issues — \$250,000 (1985)</i>		83,333	83,333	
<i>Documentation and evaluation of the planning process for dropout prevention programs in 21 cities</i>	83,000		83,000	
<i>Research on the developmental pathways of high-risk adolescents</i>	400,000		85,000	315,000
New York Urban Coalition 99 Hudson Street New York, New York 10013 <i>Model program to improve science education in elementary schools in New York City — \$220,500 (1986)</i>		165,170	110,250	54,920
New York Zoological Society Wildlife International Bronx, New York 10460 <i>Development and distribution of pilot issues of a children's health and environment magazine in southern Africa — \$25,000 (1986)</i>		23,000	23,000	
Nonprofit Coordinating Committee of New York 419 Park Avenue South New York, New York 10016 <i>1987 membership support</i>	975		975	
North Carolina, University of, Chapel Hill Chapel Hill, North Carolina 27514 <i>Pilot program in mathematics and science for minorities and girls in grades six through nine — \$250,000 (1986)</i>		175,000	50,000	125,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Northeast-Midwest Institute 218 D Street, S.E. Washington, D.C. 20003 <i>Series of conferences on educational economic development</i>	123,100		123,100	
Nuclear Control Institute 1000 Connecticut Avenue, N.W. Washington, D.C. 20036 <i>Dissemination of the results of the International Task Force on Prevention of Nuclear Terrorism</i>	25,000		25,000	
<i>Public education on nuclear terrorism</i>	80,000		40,000	40,000
Nuclear Times 1601 Connecticut Avenue, N.W. Washington, D.C. 20009 <i>Coverage of research and analysis on the avoidance of nuclear war — \$350,000 (1986)</i>		210,000	110,000	100,000
Okeyo, Achola Pala P.O.Box 47422 Nairobi, Kenya <i>Explorations into the history and relationship of three national women's organizations in Kenya — \$15,000 (1982)</i>		2,000	2,000 ^a	
Overseas Development Institute Regents' College, Inner Circle Regents' Park, London NW1 4NS, United Kingdom <i>International symposium on the role of nongovernmental organizations in the development assistance process</i>	25,000		25,000	
Overseas Development Network P.O. Box 1430 Cambridge, Massachusetts 02138 <i>Support</i>	85,500		85,500	
Pan American Health Organization 525 23rd Street, N.W. Washington, D.C. 20037 <i>Project to promote health and family life education in schools in four countries and in the Eastern Caribbean — \$299,000 (1986)</i>		212,000	95,000	117,000
<i>Planning a program to improve the health of mothers and children along the U.S.-Mexican border</i>	24,500		24,500	
Panos Institute 1405 King Street Alexandria, Virginia 22314 <i>Program of public education in the United States about the relationship between development and the environment</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Parliamentarians Global Action for Disarmament, Development, and World Reform 220 East 42nd Street New York, New York 10017 <i>Public education in the U.S. about the worldwide implications of the arms race</i>	125,000		125,000	
Pathfinder Fund 1330 Boylston Street Chestnut Hill, Massachusetts 02167 <i>Development of model education and counseling programs for pregnant adolescents in Kenya and Sierra Leone — \$402,200 (1985)</i>		320,550		320,550
Pennsylvania State University University Park, Pennsylvania 16802 <i>Interdisciplinary association concerned with science, technology, and society</i>	250,000		120,500	129,500
Phelps-Stokes Fund 10 East 87th Street New York, New York 10128 <i>Bishop Desmond Tutu Southern African Refugee Scholarship Fund</i>	100,000		50,000	50,000
	24,200		24,200	
Phillips Academy Andover, Massachusetts 01810 <i>Mathematics and Science for Minority Students Program — \$180,000 (1984)</i>		40,000		40,000
Pittsburgh Public Schools Bellenfield and Forbes Avenue Pittsburgh, Pennsylvania 15213 <i>Model program to improve science education in the schools — \$150,000 (1986)</i>		100,000	50,000	50,000
Population Council One Dag Hammarskjold Plaza New York, New York 10017 <i>Research on child survival and adolescent fertility in Mexico and the Commonwealth Caribbean — \$500,000 (1985)</i>		262,500	112,500	150,000
Press and the Public Project 250 West 57th Street New York, New York 10019 <i>Publicity for a television documentary on American media coverage of Africa</i>	18,150		18,150	
Princeton University Princeton, New Jersey 08544 <i>Research on the feasibility of reducing U.S. and Soviet reliance on nuclear weapons</i>	200,000		100,000	100,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Program for Appropriate Technology in Health 130 Nickerson Street Seattle, Washington 98109 <i>Development of methods to promote the health of mothers and newborns in two southern African countries — \$378,600 (1985)</i>		191,890	104,023	87,867
Public Agenda Foundation 6 East 39th Street New York, New York 10016 <i>Evaluation of the U.S. Committee for UNICEF's public education campaign on child health and survival in developing countries — \$125,000 (1986)</i>		50,000	50,000	
<i>Public education on national security and U.S.-Soviet relations</i>	700,000		600,000	100,000
Public Education Association 39 West 32nd Street New York, New York 10001 <i>Monitoring of the New York City dropout prevention program — \$245,000 (1986)</i>		132,000	132,000	
Puerto Rican Legal Defense and Education Fund 99 Hudson Street New York, New York 10013 <i>Education Rights Project — \$390,000 (1983)</i>		212,776	203,942	8,834
Puerto Rico Community Foundation Banco Popular Center, Suite 900 Hato Rey, Puerto Rico 00918 <i>Advancement of education and maternal and child health in Puerto Rico — \$500,000 (1985)</i>		324,000	324,000	
Pugwash Conferences on Science and World Affairs 11A Avenue de la Paix 1202 Geneva, Switzerland <i>International workshop on the prevention of accidental nuclear war</i>	25,000		25,000	
Quality Education Project 2110 Scott Street San Francisco, California 94115 <i>Model program to increase parent involvement in elementary schools in Oakland, California — \$175,000 (1986)</i>		95,000	50,000	45,000
RAND Corporation 1700 Main Street Santa Monica, California 90406 <i>Research and training on managing U.S.-Soviet conflict — \$1,000,000 (1986)</i>	1,000,000	500,000	250,000	250,000 1,000,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Workshop on nuclear and space arms control</i>	17,600		17,600	
Research Foundation for Mental Hygiene 44 Holland Avenue Albany, New York 12229 <i>Conference on research and public policy aspects of adolescent violence</i>	82,000		82,000	
Roosevelt Center for American Policy Studies 316 Pennsylvania Avenue, S.E. Washington D.C. 20003 <i>Public education on nuclear proliferation</i>	200,000		200,000	
Rutgers University New Brunswick, New Jersey 08903 <i>Program for Women State Legislators of the Center for the American Woman and Politics — \$150,000 (1986)</i>		100,000	50,000	50,000
San Francisco Education Fund 1095 Market Street San Francisco, California 94103 <i>Model program to improve science education in the San Francisco public schools — \$200,000 (1986)</i>		132,550		132,550
Scientists' Institute for Public Information 355 Lexington Avenue New York, New York 10017 <i>Media Education Project in Military Technology, National Security Issues, and Arms Control — \$200,000 (1985)</i>	400,000	50,000	100,000	300,000
<i>Media Education Project on Child Development — \$200,000 (1986)</i>		150,000	100,000	50,000
<i>Science seminars for radio and television news directors — \$124,125 (1986)</i>		99,125	99,125	
Sierra Leone, University of Freetown, Sierra Leone <i>Establishment of a University planning unit — \$376,300 (1976)</i>		40,000		40,000
Society of Gynaecology and Obstetrics of Nigeria 72 Femi Ayantuga Crescent Suru-Lere Lagos, Nigeria <i>Conference on maternal mortality and morbidity in sub-Saharan Africa — \$25,000 (1986)</i>		25,000	25,000	
South African Association for Academic Development P.O. Box 217 Conway, Massachusetts 01241 <i>American consultant on academic remediation in South African universities</i>	4,500		4,500	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Southeastern Consortium for Minorities in Engineering c/o Georgia Institute of Technology Atlanta, Georgia 30332 <i>Expansion of program in engineering, science, and mathematics at predominantly minority schools — \$392,300 (1985)</i>			276,340	276,340
Southern California, University of Los Angeles, California 90089 <i>Fellowship in the Center for International Journalism's Latin American Program</i>	50,000		50,000	
Southern Coalition for Educational Equity P. O. Box 22904 Jackson, Mississippi 39205 <i>New Orleans Effective Schools Project — \$394,000 (1986)</i>		319,000	142,000	177,000
Southern Regional Council 60 Wharton Street, N.W. Atlanta, Georgia 30303 <i>Project on the implications of the 1990 Census for redistricting</i>	500,000		132,000	368,000
Southport Institute for Policy Analysis Tide Mill Landing Building 2425 Post Road Southport, Connecticut 06490 <i>Policy analysis and dissemination on the aging society and the federal social role and other nonprofit activities</i>	175,000		20,000	155,000
Stanford University Stanford, California 94305 <i>Research and training in international security and arms control — \$905,750 (1984)</i>		114,244	114,244	
<i>Inter-University Program for Latino Research — \$120,000 (1985)</i>		40,000	40,000	
<i>Research and training in international security and arms control — \$450,000 (1986)</i>		67,065	67,065	
<i>Research on procedures for assessing school teachers — \$817,000 (1986)</i>	1,300,000	593,000	593,000 325,000	975,000
<i>Public service fellowships for graduates of Stanford University and the University of California, Berkeley, in honor of John W. Gardner — \$150,000 (1986)</i>		100,000	50,000	50,000
<i>Activities to develop more effective communication between international security scholars and the media</i>	60,900		60,900	
<i>Conference for members of Congress on economic trends affecting higher education</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
<i>Evaluation of a teacher training program in mathematics and science education for language-minority children</i>	290,000		91,830	198,170
<i>Planning a review of research on the biological, cognitive, and social aspects of adolescent development</i>	25,000		25,000	
<i>Planning materials and training for teachers on the human biology core curriculum</i>	25,000		25,000	
<i>Research and training in international security and arms control</i>	1,350,000		222,564	1,127,436
<i>Research and writing on international relations</i>	250,000		145,000	105,000
<i>Research on accidental or inadvertent nuclear war</i>	25,000		25,000	
<i>Study of collaborative activities in science and mathematics among universities, public schools, and industry</i>	115,500		115,500	
<i>Symposium on the contributions of scholarship to reducing the risk of nuclear war</i>	117,400		117,400	
Structured Employment Economic Development Corporation 130 West 42nd Street New York, New York 10036				
<i>Preparation and dissemination of a summary of a report on model programs for dropout prevention and services for dropouts</i>	25,000		25,000	
Target '90/Goals for San Antonio 1222 Main, Cypress Tower San Antonio, Texas 78212				
<i>Model program to improve science education in the public schools</i>	150,000		51,400	98,600
Teachers College, Columbia University New York, New York 10027				
<i>Research on the history of American education — \$197,736 (1973)</i>		109,736		109,736
Texas, University of, at Austin Austin, Texas 78712				
<i>Planning a program of research on peacekeeping and international security</i>	25,000		25,000	
<i>Research on audience reactions to Amerika, a television series</i>	20,600		20,600	
TransAfrica Forum 545 8th Street, S.E. Washington, D.C. 20003				
<i>Support — \$150,000 (1985)</i>		75,000	75,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Turner, Stansfield 1320 Skilwith Road McLean, Virginia 22101 <i>Research and writing on terrorism and democracy</i>	75,000		75,000	
United Nations Association of the United States of America 300 East 42nd Street New York, New York 10017 <i>Program on the uses of outer space for civilian and military purposes — \$350,000 (1986)</i>		175,000	175,000	
United States Committee for UNICEF 331 East 38th Street New York, New York 10016 <i>Public education in the United States on child health and survival in developing countries</i>	21,450		21,450	
United States Department of Education 400 Maryland Avenue, S.W. Washington, D.C. 20202 <i>Mina Shaughnessy Scholars Program of the Fund for the Improvement of Postsecondary Education — \$250,000 (1980)</i>		23,950		23,950
United States-South Africa Leader Exchange Program 1700 17th Street, N.W. Washington, D.C. 20009 <i>Alan Pifer South Africa-United States Fellowship Program — \$100,000 (1983)</i>	5,778 ^b	84,580		90,358
United World Colleges London House, Mecklenburgh Square London WC1N 2AB, United Kingdom <i>Expenses of participants in a meeting on Third World development</i>	25,000		25,000	
Urban Affairs Partnership Broad and Chestnut Streets Philadelphia, Pennsylvania 19107 <i>Model program to improve mathematics and science education in the Philadelphia public schools — \$250,000 (1986)</i>		135,000	65,000	70,000
Urban Institute 2100 M Street, N.W. Washington, D.C. 20037 <i>Study of nonprofit organizations and their relationship to government</i>	75,000		75,000	
Utah, University of Salt Lake City, Utah 84112 <i>HERS/West — \$210,000 (1984)</i>		25,000		25,000

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Wesleyan University Middletown, Connecticut 06457 <i>Conference on the impact of remedial law on organizations</i>	20,000		20,000	
West Indies, University of the Mona, Kingston 7 Jamaica <i>Health program in the Commonwealth Caribbean under the auspices of the Women and Development Unit — \$321,700 (1986)</i>		195,600	91,700	103,900
Western Cape, University of the Private Bag X17 7530 Belleville, Republic of South Africa <i>Centre for Adult and Continuing Education — \$60,000 (1986)</i>		60,000	60,000	
Western Service Systems 1410 Grant Street Denver, Colorado 80203 <i>Education advocacy in behalf of Hispanic children — \$293,000 (1986)</i>		81,500	81,500	
WGBH Educational Foundation 125 Western Avenue Boston, Massachusetts 02134 <i>Fellowship program in science broadcast journalism — \$250,000 (1986)</i>		125,000	125,000	
<i>Audience research and promotion for a television series for early adolescents</i>	25,000		25,000	
<i>Development of an educational television series and course on Latin America and the Caribbean</i>	180,000		60,100	119,900
<i>Production of a television series on international environmental issues and for related educational activities</i>	335,120		100,000	235,120
<i>Symposium on children's television</i>	25,000		25,000	
Wilgespruit Fellowship Centre P.O. Box 81, Roodepoort 1725 Transvaal, Republic of South Africa <i>Training program for black South Africans in community development skills</i>	105,000		30,000	75,000
Wisconsin-Madison, University of Madison, Wisconsin 53706 <i>Dissemination of a monograph on improving mathematics and science education for minorities and girls</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Witwatersrand, University of the 2001 Johannesburg, Republic of South Africa <i>Centre for Applied Legal Studies — \$125,000 (1978)</i>		567 75,000	50,000	567 25,000
Woodrow Wilson International Center for Scholars Smithsonian Institution Building Washington, D.C. 20506 <i>Research, writing, and meetings on Soviet political leaders</i>	150,000		150,000	
Woodrow Wilson National Fellowship Foundation P.O. Box 642 Princeton, New Jersey 08542 <i>Institutes in mathematics and science for teachers at predominantly minority secondary schools — \$150,000 (1986)</i>		100,000	50,000	50,000
World Health Organization 1211 Geneva 27 Switzerland <i>Research and training on biobehavioral science and mental health in developing countries — \$448,000 (1986)</i>		243,000 223,000	106,500	243,000 116,500
<i>Development and evaluation of functional literacy programs for women in Kenya, Zimbabwe, Ghana, and Nigeria</i>	326,000		136,000	190,000
<i>Program to reduce the health risk of childbearing in Africa and the Caribbean</i>	230,000		230,000	
Worldwide Documentaries 50 Chestnut Plaza Rochester, New York 14604 <i>Production and distribution of a film on a South African Church leader</i>	25,000		25,000	
Yale University New Haven, Connecticut 06520 <i>Fellowships for black South Africans in the Southern African Research Program — \$100,000 (1986)</i>		66,666	33,333	33,333
<i>Model school improvement programs in middle schools in New Haven — \$270,000 (1986)</i>		138,000	138,000	
<i>Seminars in mathematics and science for public school teachers in the Yale-New Haven Teachers Institute — \$250,000 (1986)</i>		184,300	90,000	94,300
Yeshiva University Bronx, New York 10461 <i>Research on adolescent health at the Albert Einstein College of Medicine</i>	25,000		25,000	
<i>Research on adolescent health at the Albert Einstein College of Medicine</i>	25,000		25,000	

Recipient and/or purpose	Allocated or appropriated during year	Unpaid at beginning of year	Paid during year	Unpaid at end of year
Zimbabwe, University of Harare, Zimbabwe				
Staff recruitment and development — \$50,000 (1982)		18,109		18,109
Conference on the role of higher education in African development	25,000		25,000	
Total	\$37,098,978	\$21,293,816	\$32,815,589	\$25,577,205
Studies and projects administered by the officers				
Aging Society Project — \$355,600 (1986)		75,850	75,850	
		23,900	23,823	77
Carnegie Council on Adolescent Development — \$500,000 (1986)	700,000	486,288	416,839	69,449
				700,000
Carnegie Forum on Education and The Economy — \$910,000 (1986)	1,716,000	287,619	287,619	
			817,465	898,535
Dissemination of a report on programs and services to foster responsible sexual behavior on the part of adolescent boys	1,610		1,610	
Dissemination in the U.S. of the outcomes of the Second Carnegie Inquiry into Poverty and Development in Southern Africa — \$300,000 (1986)		141,860	4,235	137,625
Total	\$ 2,417,610	\$ 1,015,517	\$ 1,627,442	\$ 1,805,685

^aCancelled: included in total payments.

^bFunds from the appropriation are held in a separate interest-bearing account. This amount represents interest in fiscal year 1987.

Adjustments of grant appropriations

Not required: cancelled (listed above) \$ 8,093

Refunds from grants or allocations made in prior years

1978–79	Carnegie Council on Children	\$ 381
1982–83	American Association for Higher Education	3,509
1982–83	Claremont University Center	2,811
1983–84	International Research & Exchanges Board	10,031
1983–84	National Governors' Association	10,649
1985–86	American Association for the Advancement of Science	7,279
1985–86	California, University of, San Diego	1,449
1985–86	Massachusetts, University of, Amherst	515
1985–86	National Academy of Education	8,484
1985–86	National Academy of Sciences	673
1986–87	RAND Corporation	3,147
1986–87	South African Association for Academic Development	111
1986–87	WGBH Educational Foundation	2,000
		<u>\$51,039</u>

REPORT OF THE SECRETARY

The trustees held regular board meetings on October 8 and 9, and December 11, 1986, and February 12, April 9, and June 18, 1987. At the annual meeting in December, Newton N. Minow was elected a new trustee to fill the vacancy left by the retirement of Jack G. Clarke. Mr. Clarke served as vice chairman of the board from 1984, and as a member of the finance and administration committee from 1984. He also served terms on both the nominating and agenda committees. Also at the December meeting, Richard B. Fisher was elected to a second four-year term as trustee, Helene L. Kaplan was reelected chairman of the board, and Margaret K. Rosenheim was elected vice chairman.

Mr. Minow holds bachelor's and doctor of jurisprudence degrees from Northwestern University and is a partner in the Chicago law firm of Sidley & Austin. He is a former chairman and director of the Public Broadcasting Service and is a trustee of The RAND Corporation, Northwestern University, Pan American World Airways, and CBS Inc., among others.

During the year, the finance and administration committee met on November 5, 1986, and February 10, February 18, May 6, September 2, and September 23, 1987. A meeting of the committee was also conducted by mail during the period December 18 to December 24, 1986. Members of the committee during the year were Mr. Fisher, chairman, Bruce B. Dayton, David A. Hamburg, Ms. Kaplan, Ann R. Leven, Ray Marshall, and Laurence A. Tisch.

The members of the nominating committee during the year were Ms. Rosenheim, chairman, Dr. Hamburg, Ruth Simms Hamilton, Fred M. Hechinger, and Thomas A. Troyer. The committee met on October 8, 1986, and February 11 and April 8, 1987.

The agenda committee, an *ad hoc* committee of the board since 1981, was composed during the past year of Ms. Kaplan, Dr. Hamburg, James A. Gibbs, Sheila E. Widnall, and Mr. Minow, who replaced Mr. Clarke. Meetings were held in conjunction with each of the meetings of the board of trustees.

A retreat for trustees and senior staff of the Corporation was held in Washington,

D.C. on May 6-8, 1987. The topic of the meeting was the grant program, Strengthening Human Resources in Developing Countries, including a discussion of the Corporation's policy regarding South Africa.

Alan Pifer, president *emeritus*, senior consultant, and director of the Aging Society Project and the Project on the Federal Social Role, retired from the Corporation in September 1987. He has established the Southport Institute for Policy Analysis in Southport, Connecticut. The Institute will seek to increase public knowledge about policy issues in the areas of federal social policy, population aging, higher educational policy, philanthropy, and U.S. policy toward South Africa.

In September 1987, Sara L. Engelhardt left the Corporation to become executive vice president of the Foundation Center. A member of the staff since 1966, Ms. Engelhardt was secretary of the Corporation from 1975. She was a trustee of the Foundation Center and chairman of its Advisory Committee on Fundraising before joining the Center's staff.

At the October 1986 meeting of the board, David Z. Robinson was appointed treasurer of the Corporation, in addition to continuing as executive vice president. His appointment as acting treasurer had been made at the June meeting subsequent to the resignation of Richard W. Greene.

There were several other staff changes during the course of the year. In December 1986, Jill W. Sheffield, program officer since 1983 in the grant program, Strengthening Human Resources in Developing Countries, left to found Family Care International, Inc., a nonprofit agency providing health services in developing countries. Also in December, Diane L. August, program associate in the grant program, Toward Healthy Child Development: The Prevention of Damage to Children, left to join the staff of the Children's Defense Fund in Washington, D.C.

In April 1987, Patricia L. Rosenfield joined the staff as program officer in the grant program, Strengthening Human Resources in Developing Countries. From 1978 to 1987, Ms. Rosenfield was with the World Health Organization, where she was responsible for program development in the Special Programme for Research and Training in Tropical Diseases, conducted jointly with the United Nations Development Program and the World Bank. She holds a doctorate in geography and environmental engineering from Johns Hopkins University and has served as an adviser to the Edna McConnell Clark Foundation.

Michele A. Berdy joined the staff in October 1986, replacing Linda Lange as editorial assistant. A graduate of Amherst College, Ms. Berdy was previously a program officer at the International Research & Exchanges Board. In April 1987, Nancy M. Matthews, who joined the Corporation in 1984 as a staff assistant, became administrative assistant in the office of the secretary, replacing Helen Cesar. Helen Noah, administrative assistant to Mr. Pifer, joined the secretary's office in September when Mr. Pifer left the Corporation.

Three staff appointments were made in September 1987. Anthony W. Jackson joined the staff of the Carnegie Council on Adolescent Development for a two-year term as program director of the new Task Force on Education of Young Adolescents. Mr. Jackson holds a doctorate in psychology from the University of Michigan and previously worked as a writer, editor, and researcher for the Select

ERRATUM

Biographical information about Patricia L. Rosenfield, which appears on page 142, should be corrected to read as follows:

In April 1987, Patricia L. Rosenfield joined the staff as program officer in the grant program, Strengthening Human Resources in Developing Countries. From 1978 to 1987, Ms. Rosenfield was with the World Health Organization, where she developed and managed the Social and Economic Research Component of the United Nations Development Program/World Bank/World Health Organization Special Programme for Research and Training in Tropical Diseases. She received her Ph.D. from the Department of Geography and Environmental Engineering at The Johns Hopkins University, where her specializations were resource economics, public health, and water resources. She has served as an adviser to the Edna McConnell Clark Foundation.



Committee on Children, Youth, and Families, U.S. House of Representatives. Sheila A. Smith was appointed program associate in the grant program, *Toward Healthy Child Development: The Prevention of Damage to Children*. She recently completed a congressional fellowship with the American Association for the Advancement of Science and the Society for Research in Child Development. Ms. Smith holds a doctorate in psychology from the University of Chicago. Cynthia E. Merritt, a graduate of Wellesley College, who was formerly with the International Research & Exchanges Board and the Charles A. Dana Foundation, was appointed assistant to the secretary.

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Andrew Carnegie was born in Scotland in 1835. He came to the United States with his family in 1848 and went to work as a bobbin boy in a cotton mill. After a succession of jobs with Western Union and the Pennsylvania Railroad, he eventually resigned to establish his own business enterprises and, finally, the Carnegie Steel Company, which launched the huge steel industry in Pittsburgh. At the age of 65 he sold the Company and devoted the rest of his life to writing, including his autobiography, and to philanthropic activities, intending to give away \$300 million. He gave away \$311 million.

Gifts to hundreds of communities in the English-speaking world helped to make his idea of the free public library as the people's university a reality. In all, 2,509 libraries were built with Carnegie funds. His endowment of the Carnegie Institute in Pittsburgh brought important educational and cultural benefits to the community in which he made his fortune. From experience he knew the importance of science applied to commerce and industry, and he provided for technical training through the Carnegie Institute of Technology. By establishing the Carnegie Institution of Washington he helped to stimulate the growth of knowledge through providing facilities for basic research in science.

Mr. Carnegie set up the Carnegie Trust for the Universities of Scotland to assist needy students and to promote research in science, medicine, and the humanities. For the betterment of social conditions in his native town of Dunfermline, Scotland, he set up the Carnegie Dunfermline Trust. To improve the well-being of the people of Great Britain and Ireland, he established the Carnegie United Kingdom Trust.

In the United States, he created The Carnegie Foundation for the Advancement of Teaching primarily as a pension fund for college teachers and also to promote the cause of higher education. To work for the abolition of war, he established the Carnegie Endowment for International Peace. To recognize heroism in the peaceful walks of life as being as worthy as valor in battle, he created funds in the United States, the United Kingdom, and nine European countries to make awards for acts of heroism. In contributing to the construction of the Peace Palace at The Hague, the Pan American Union building in Washington, and the Central American Court of Justice in Costa Rica, he further expressed his belief in arbitration and conciliation as substitutes for war.

In 1911, having worked steadily at his task of giving away one of the world's great fortunes, Mr. Carnegie created Carnegie Corporation of New York, a separate foundation as large as all his other trusts combined.

Each of the Carnegie agencies has its own funds and trustees and each is independently managed.

The following statements are set forth in accordance with section 6056 of the United States Internal Revenue Code, pursuant to which this annual report has been prepared:

- Carnegie Corporation of New York (employer identification number 13-1628151) is a private foundation within the meaning of section 509(a) of the Internal Revenue Code.
- The names and respective business addresses of the “foundation managers” of the Corporation are set forth in the front section of this annual report.
- No person who is a “foundation manager” with respect to the Corporation has made any contribution to the Corporation in any taxable year.
- At no time during the year did the Corporation (together with other “disqualified persons”) own more than 2 percent of the stock of any corporation or corresponding interests in partnerships or other entities.
- Pursuant to section 6104(d) of the Internal Revenue Code, a notice has been published that this annual report and the Corporation’s annual return are available for public inspection at the principal office of the Corporation. A copy of this report has been furnished to the Attorney General of the State of New York.

April 15, 1988

David A. Hamburg, President

